

From: Rose, Adrian (Houston)
Sent: Monday, May 10, 2010 8:02 PM
To: McMahan, Larry (Houston)
Cc: Bobillier, Arnaud (Geneva); Ambrose, Bill (Houston); Cantwell, Guy (Houston)
Subject: FW:

Attachments: DWH.zip

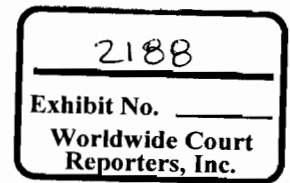
FYI - This was the MAHRA conducted for the Horizon in 2004.

Regards

Adrian Rose

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ATTORNEY-CLIENT COMMUNICATION



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TRN-MDL-01184580



**MAJOR ACCIDENT HAZARD
RISK ASSESSMENT**


DEEPWATER HORIZON

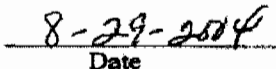
**Revision: 01
29 AUGUST 2004**


STATEMENT OF APPROVAL

The Major Accident Hazard Risk Assessment performed for the Deepwater Horizon identified reasonably foreseeable hazards that might lead to a major accident. It has been demonstrated that adequate controls are in place so that HSE risks on the Deepwater Horizon can be considered both tolerable and ALARP (As Low As Reasonably Practicable). This assessment has been reviewed and recommendations which were developed have been followed up.

In light of the above, this document is approved.


John Keeton Rig Manager


Date

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EXECUTIVE SUMMARY

From August 4, 2003 to August 8, 2003, a team of personnel from Transocean performed a Major Accident Hazard Risk Assessment on the Deepwater Horizon.

The purpose of the study was to demonstrate that adequate controls are in place so that HSE risks on the Deepwater Horizon can be considered both tolerable and ALARP (As Low As Reasonably Practicable).


In order to accomplish this, the hazards that might lead to a Major Accident were identified and measures shown to be in place to eliminate the hazards or mitigate the consequences of the hazards.

The study team examined hazards associated with individual compartments, critical systems, and the entire installation.

During the entire Major Accident Hazard Risk Assessment, the team developed twenty seven (27) recommendations. None of the recommendations were for hazards ranked 'High' Risk, nine (9) were for hazards ranked as 'Medium' Risk, fourteen (14) were for hazards ranked 'Low' Risk, and four (4) were unranked.

Each recommendation from the assessment will become an Action Item and assigned to a Responsible Person. Each recommendation will require follow up after which the results of the actions will be recorded and the report reissued. If no action was taken for a given recommendation, a reason must be recorded.

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INTRODUCTION

The purpose of the study was to demonstrate that adequate controls are in place so that HSE risks on the Deepwater Horizon can be considered both tolerable and ALARP (As Low As Reasonably Practicable).

In order to accomplish this, the hazards that might lead to a Major Accident must be identified and measures shown to be in place to eliminate the hazards or mitigate the consequences of the hazards.

OBJECTIVES

To critically examine the Installation and its modus-operandi in order to identify and evaluate the risks with respect to the overall safety to the crew and the Installation.

To make recommendations that could eliminate a hazard or reduce the consequences or frequency of an incident to ALARP (As Low as Reasonably Practicable).

DEFINITION – MAJOR ACCIDENT HAZARD

A major accident means: *(From UK Safety Case Regulations)*

- a fire, explosion or the release of a dangerous substance involving death or serious personal injury to persons on the Installation or engaged in an activity on or in connection with it;
- any event involving major damage to the structure at the Installation or plant affixed thereto or any loss in the stability of the Installation;
- a collision of a helicopter with the Installation;
- the failure of life support systems for diving operations in connection with the Installation, the detachment of a diving bell used for such operations or the trapping of a diver in a diving bell or other subsea chamber used for such operations; or
- any other event arising from a work activity involving death or serious personal injury to five or more persons on the Installation or engaged in a activity in connection with it.

PROCESS

The process is divided into three sections. These sections must be taken as part of a greater whole in order to assure that confidence can be placed in the results of the study. Each of the three sections examines the vessel (and any associated hazards) with different perspectives. The sections are:

- ☐ Compartment-by-Compartment
- ☐ System-by-System
- ☐ Entire Installation

The process was completed by a team made of both installation based and onshore based personnel. This provides for greater 'buy-in' by the personnel actually implementing and using the systems, as well as:

- ☐ Developing further 'ownership' of safety issues among the crew;
- ☐ Increasing the understanding and insight among the crew as to the interaction of hardware, procedure, human aspects of a 'safe' operation;
- ☐ Developing 'in-house' capabilities within the personnel; and
- ☐ Keeping the Risk Assessment Procedure within the ease of understanding of the personnel involved.

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PERSONNEL

The following personnel participated in the study:

Steve Cross	Toolpusher
Richard Kennedy	Mechanical Supervisor
Mike Marzolf	Captain
Peter Cyr	Chief Mate
Kenneth Hildre	Chief Engineer
Steve Bertone	Electrical Supervisor
Tyson Cullum	RSTC
Dan Vairo	3rd Mate
Mike Dow	3rd Mate
Lee Meyers	Roustabout
Sammy Moore	Facilitator

A brief resume of each of the personnel in the study team is included in Appendix I.

BACKGROUND

The Deepwater Horizon is a dynamically positioned semi-submersible Mobile Offshore Drilling Unit (MODU) capable of operating in harsh environments and water depths up to 8,000 feet. It is classed with ABS and is registered under the Panamanian flag. Maximum POB (personnel on board) is 146.

MAJOR ACCIDENT HAZARD SCENARIOS


The study concentrated on identifying Major Accident Hazards. The following is a list of possible Major Accident Hazards for semi-submersibles engaged in exploration or development drilling.

- Shallow Gas Blowout Subsea
- Shallow Gas Blowout in Cellar Deck
- Reservoir blowout at Drill Floor
- Toxic Gas Release
- Fire / Explosion due to Entrained Gas Release in Mud Processing Areas
- Well Test Area Fire / Explosion
- Explosion of Pressure Vessels
- Major Mechanical Failure
- Dropped Objects
- Ship Collision
- Helicopter Crash on Installation
- Structural Failure due to Extreme Weather
- Station Keeping Failure
- Loss of Stability
- Loss of Control in Transit

Other Possibilities:

- Marine Events
- Man Overboard
- Helicopter Crash into Sea

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COMPARTMENT PERSPECTIVE

Process

The study team developed a list of compartments and areas on the vessel. The team then visited each compartment or area and completed a Compartment Sheet for each area. The team identified all power, fluid, control lines, and control systems in the space. The team also identified the safety provisions for the space including HVAC configuration, passive fire protection, fire and gas detection, fire suppression means, and escape routes.

The team then identified any equipment or situations that could lead to a Major Accident. The hazard, consequences, preventions, and mitigations were recorded on the Compartment Sheet along with any recommendation that the team felt were necessary. The team also ranked the hazard by Severity and Likelihood, and determined the Risk Rank using a Risk Matrix. (The Risk Matrix can be found in Appendix II of this report).

After completing the survey of the various compartments, the team met and reviewed each Compartment Sheet to ensure that the sheets were complete and accurate.

List of Compartments

The study team examined the following compartments. The individual Compartment Sheets can be found in Appendix III of this report.

- #1 Process Equipment Room
- #5 Thruster Upper and Lower
- 24 m Flat Port Forward
- 28.5 m Flat Port Forward
- A/C Unit Room
- Aft Lifeboat Deck
- AHU Room Port 2nd Deck
- Auxiliary Derrick
- Auxiliary M/C Room Port
- Battery Room
- BOP Accumulator Room
- BOP Control Room
- BOP House Top
- Cement Unit Room
- Change Room
- Cinema/Conference Room
- Client Office
- Client's Store/Bosun's Locker
- CO2 Room
- Control Room Bridge
- Deck Office
- Derrick
- Drawworks House Top
- Driller's Store
- Driller's Store Top
- Driller's Work Station
- Dry Store
- Electrical Equipment Room Port Forward 2nd Deck


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- Engine Control Room
- Engine Room Store Port
- Equipment Room Forward of Driller's Store
- ET Room
- Fuel Oil Purifier Room Port
- Galley
- Gymnasium/Sauna
- Helideck
- Hospital
- HPU Room Starboard
- Laundry and Laundry Store
- Machine Shop
- MCC Center Port
- Mechanical Shop
- Mess room
- Moonpool
- Mud Mixing Room
- Mud Pit Room
- Mud Pump Room
- Paint Locker
- Port Access Tunnel
- Port Aft Upper Deck
- Port Crane and Pedestal
- Port Forward Electrical Thruster Space Upper and Lower
- Port Forward Pump Room Upper and Lower
- Port Forward Upper Deck
- Rig Floor
- Roustabout Locker
- ROV Unit
- Sack Store
- Sewage Treatment Room
- Shale Shaker House
- Ship Service Air Compressor Room Port
- Standby Generator Room
- Starboard Aft Upper Deck
- Starboard Forward Upper Deck
- Starboard HVAC Space
- Subsea BOP Control Unit
- Subsea Tree Assembly Room
- Subsea Workshop
- Switchgear Room Port
- Transformer Room Starboard
- Warehouse
- Watermaker Room Port
- Welding Shop

Results

During the Compartment Survey, the team developed twenty seven (27) recommendations. Nine (9) of were for hazards ranked as 'Medium' Risk, fourteen (14) were for hazards ranked 'Low' Risk and four (4) were unranked. See the Recommendation Section below for the specific recommendations and their status in Appendix VI.

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INSTALLATION PERSPECTIVE

Process

The team assessed the major accident risks to the installation as a whole. The team discussed several Hazard Scenarios that could result in a Major Accident. The hazard, consequences, preventions and mitigations were recorded in a table. The hazards were ranked by Severity and Likelihood, and the Risk Rank was determined using a Risk Matrix. (The Risk Matrix can be found in Appendix II of this report).

List of Hazard Scenarios

The following is a list of the Hazard Scenarios assessed by the team. The table used to record assessment can be found in Appendix IV.

- Collision of vessel into rig
- Helicopter collision other than the helideck
- Helicopter collision at helideck
- Reservoir blowout
- Shallow gas blowout
- Gas in riser
- Toxic gas release
- major structural failure
- Severe weather including eddy currents
- Loss of station keeping
- Storage/use of radioactive material
- Storage/use of explosive material
- Dropped or fallen objects
- Major fire and/or explosion at well test facility

Results

No recommendations were developed during the Installation Perspective assessment

SYSTEM PERSPECTIVE

Process

The team reviewed a number of critical systems for Major Accident Hazards. The hazard, consequences, preventions and mitigations for each system were recorded in a table. The hazards were ranked by Severity and Likelihood, and the Risk Rank was determined using a Risk Matrix. (The Risk Matrix can be found in Appendix II of this report).

List of Critical Systems

The following is a list of Critical Systems assessed by the team. The tables used to record the assessments can be found in Appendix V.

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- Fire and gas detection and alarms
- Telephone, PA, and general alarm
- Driller's talkback (Echo) system
- Marisat, sat phone, vhf, etc.
- Ballast/bilge equipment
- Ballast/bilge control
- Power generation
- Power management /distribution
- Engine cooling
- Salt water service
- Freshwater cooling
- Fire system
- HVAC and ventilation
- Fuel
- HP air
- Rig air
- Drilling
- Drilling equipment instrumentation
- Riser/diverter
- BOP systems
- Cranes
- Escape and evacuation
- Station keeping

Results

No recommendations were developed during the Systems assessment.

RECOMMENDATIONS


During the entire Major Accident Hazard Risk Assessment, the team developed twenty seven (27) recommendations. None of the recommendations were for hazards ranked 'High' Risk, nine (9) were for hazards ranked as 'Medium' Risk, fourteen (14) were ranked 'Low' Risk and four (4) were unranked.

Each recommendation will become an Action Item and be assigned to a Responsible Person. Each recommendation will require follow up after which the results of the actions will be recorded and the report reissued. If no action was taken for a given recommendation, a reason must be recorded. The Recommendations and their status are presented in Appendix VI.

The recommendations are listed with their risk ranking and references to the Appendices where further information may be found in the following format [Risk Rank – Risk Category / *Compartment, Global Scenario or Critical System*, Appendix-Page]

1. Consider providing high voltage PPE for the A/C Unit Room. Also replace the sign detailing steps to take in an electrical shock situation with one having larger typeface.
[15 - Medium / Compartment, III-3]

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2. Consider providing a sign for the A/c Unit Room warning " Caution - Hot Surfaces".
[9 - Low/Compartment, III-3]
3. Consider providing high voltage PPE for the Auxiliary MCC Room. Also consider placement of a sign detailing steps to take in an electrical shock situation.
[15 - Medium / Compartment, III-9]
4. Consider the installation of a PPE box for the Battery Room. Also consider the installation of an eyewash station for the Battery Room.
[9 - Low/Compartment, III-13]
5. Consider the placement of warning signs on the outside aft and fwd doors to the Cement Unit Room warning of high noise levels.
[Unranked/Compartment, III-21]
6. Consider the installation of an approved flammables storage locker for the Port Crane pedestal.
[9 - Low/Compartment, III-33]
7. Consider the installation of an approved flammables storage locker for the Driller's Store Room.
[9 - Low/Compartment, III-43]
8. Consider providing high voltage PPE for the electrical Equipment Room port fwd. Also consider placement of a sign detailing steps to take in an electrical shock situation.
[15 - Medium / Compartment, III-49]
9. Consider the installation of an approved flammables storage locker for the Electrician's Shop.
[9 - Low/Compartment, III-51]
10. Consider the installation of a PA speaker with adjustable volume in the hospital.
[Unranked/Compartment, III-71]
11. Consider providing high voltage PPE for the HVAV Room. Also consider placement of a sign detailing steps to take in an electrical shock situation.
[15 - Medium / Compartment, III-75]
12. Consider the installation of an approved flammables storage locker for the HVAC Room.
[9 - Low/Compartment, III-75]
13. Consider the provision of an approved oily waste disposal container for the Machine Shop.
[9 - Low/Compartment, III-79]
14. Consider the installation of an approved flammables storage locker for the Machine Shop
[9 - Low/Compartment, III-79]
15. Consider providing high voltage PPE for the MCC Room. Also consider placement of a sign detailing steps to take in an electrical shock situation.
[15 - Medium / Compartment, III-89]
16. Consider placing "Warning - Hot Surfaces" signs on the mud lines in the mud mixing area of the Sack Store.
[9 - Low/Compartment, III-97]

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17. Consider provision of an approved flammables storage locker and an oily waster container for the Center Mud Pump Room
[9 - Low/Compartment]

18. Consider the placement of a sign detailing the steps to take in an electrical shock situation in the port fwd Electrical Thruster space.
[15 - Medium/Compartment, III-109]

19. Consider the placement of a "High Voltage" warning sign on the door of the #1 Process Unit Room aft of the Bridge/CCR.
[15 - Medium/Compartment, III-111]

20. Consider the installation of a smoke detector in the ROV Control Van.
[9 - Low/Compartment, III-117]

21. Consider the provision of an oily waste disposal container for the Ship Service Air Compressor Room.
[9 - Low/Compartment, III-121]

22. Consider the provision of an oily waste disposal container for the Standby Generator Room.
[9 - Low/Compartment, III-127]

23. Consider the provision of an approved flammables storage locker for the Subsea Workshop.
[9 - Low/Compartment, III-133]

24. Consider the provision of high voltage PPE for the port 480v Switchboard Room
[15 - Medium/Compartment, III-135]

25. Consider extending the ladder from Thruster #5 lower space so that it extends above the deck in the upper part of the space so that hook up can be made more safely.
[Unranked/compartment, III-137]


26. Consider providing high voltage PPE for the MCC Room. Also consider placement of a sign detailing steps to take in an electrical shock situation.
[15 - Medium / Compartment, III-141]

27. Consider special training for personnel in awareness of electrical shock and steps to take when finding a casualty (use of shepherd's crook). consider developing a presentation to run on the screen in the mess room.
[Unranked]

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**APPENDIX I
TEAM MEMBER QUALIFICATIONS**

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Name: Steve Cross
Position: Toolpusher
Work History: Toolpusher 1997 to present

Name: Mike Marzolf
Position: Master
Work History: Master on Deepwater Horizon Nov 2000 to present
 Chief Mate on Deepwater Millennium Nov 1999 – Oct 2000
 Marine Pilot Oct 1987 – Nov 1999
 Captain Crest Tankers Spring 1986 – Oct 1987
 Third Mate, Second Mate and Chief Mate, various vessels 1978 - 1986

Name: Peter Cyr
Position: Chief Mate
Work History: Chief Mate on Deepwater Horizon Nov 2000- present
 Chief Mate on Deepwater Pathfinder Jan 2000 – Nov 2000
 Second Mate/DPO on Deepwater Pathfinder 1998 – Jan 2000
 DPO Trainee on Ioliar and Randgrid 1998
 Control Room Operator on Jack Bates 1995 –1997

Name: Kenneth – Peter Hildre
Position: Chief Engineer/Maintenance Supervisor
Work History: Chief Engineer/Maintenance Supervisor on Deepwater horizon Aug 2001 - present
 First Assistant Engineer on Deepwater Horizon Nov 2000 – Aug 2001
 First Assistant Engineer on Seismic vessels 1998 – 2000
 Second Assistant Engineer on Cruise vessels 1998
 Second/Third Assistant Engineer on Chemical Tankers 1993 – 1998
 Trainee Engineer on Supply vessels 1992 - 1993

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Name: Steve Bertone

Position: Electrical Supervisor

Work History: Electrical Supervisor on Deepwater Horizon April 03 to present
Electrical Supervisor on Marianas April 02 to April 03
Chief Electrician on Marianas April 01 to April 02
Chief Electrician on Falcon 100 June 1998 to April 01
Journeyman Electrician 1995, Houston TX
Apprentice Electrician 1991 to 1995, Houston TX

Name: Richard Kennedy

Position: Mechanical Supervisor

Work History: Mechanical Supervisor on Deepwater Horizon 1999 – September 2003
US Navy, Engineering staff on Submarines, 20+ years

Name: Tyson Cullum

Position: RSTC

Work History: RSTC on Deepwater Horizon Nov 2000 – present
Safety Advisor on various vessels 1998 – 2000
H2S Technician (overseas) 1998 – 2000
Firefighter 1989 – 1997
Paramedic 1989 - present

Name: Dan Vairo

Position: Third Mate/DPO

Work History: Third Mate/DPO on Deepwater Horizon May 02 - present
Third Mate on Deepwater Pathfinder Dec 00 – May 02

Name: Mike Dow

Position: Third Mate/DPO

Work History: Third Mate/DPO on Deepwater Horizon Oct 02 – present
Third Mate/DPO on Deepwater Pathfinder July 02 – Oct 02
Third Mate/DPO on Deepwater Millennium Oct 01 – July 02
Supply vessel industry 1998 – Oct 01

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Name: Lee Meyers

Position: Roustabout

Work History: Roustabout on Deepwater Horizon May 03 – present
 Ordinary Seaman on Cajun Express July 02 – May 03
 Worked ashore (non oilfield) from Feb 01 to July 02
 Rig Clerk July 1998 – Feb 01

Name: Sammy Moore

Position: MAHRA Facilitator

Work History: 18+ years in Marine Department on various rigs as AB Seaman, Bosun, BCO
 and Barge Supervisor
 2 years experience developing HSE Case Studies

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**APPENDIX II
RISK MATRIX**

RISK MATRIX

The Risk Matrix is 5 x 5 with Severity along one axis and Likelihood along the other. The team should rate the Severity and Likelihood of each hazard using the appropriate criteria below. The Severity is divided into three categories: People, Assets, and Environment. The team should use whichever category results in the highest (worst) Risk Category.

Severity Rankings (*People*)

- ☐ Slight (1) – Hazard may reasonably result in a First Aid Case
- ☐ Minor (2) – Hazard may reasonably result in a Medical Treatment Case
- ☐ Significant (3) – Hazard may reasonably result in a Serious Injury Case
- ☐ Severe (4) – Hazard may reasonably result in a Fatality
- ☐ Extremely Severe (5) – Hazard may reasonably result in multiple Fatalities

Severity Rankings (*Assets*)

- ☐ Slight (1) – Hazard may reasonably result in equipment damage and downtime totaling less than \$10,000
- ☐ Minor (2) – Hazard may reasonably result in equipment damage and downtime totaling between \$10,000 and \$50,000
- ☐ Significant (3) – Hazard may reasonably result in equipment damage and downtime totaling between \$50,000 and \$500,000
- ☐ Severe (4) – Hazard may reasonably result in equipment damage and downtime totaling between \$500,000 and \$5,000,000
- ☐ Extremely Severe (5) – Hazard may reasonably result in equipment damage and downtime totaling greater than \$5,000,000

Severity Rankings (*Environment*)

- ☐ Slight (1) – Spill is contained onboard.
- ☐ Minor (2) – Spill to the environment of less than 1 bbl
- ☐ Significant (3) – Spill to the environment of 1 bbl to 5 bbl OR less than 1 ton
- ☐ Severe (4) – Spill to the environment of 5 bbl to 100 bbl OR greater than 1 ton
- ☐ Extremely Severe (5) – Spill to the environment of greater than 100 bbl

Likelihood Rankings

- ☐ Negligible (A) – Incident not known to have occurred in the industry
- ☐ Low (B) – Incident known to have occurred in the industry
- ☐ Medium (C) – Incident occurs on the given rig
- ☐ High (D) – Incident occurs as much as annually on the given rig
- ☐ Frequent (E) – Incident occurs more than annually on the given rig

After the Likelihood and Severity Rankings for the Hazard are determined, use the Risk Matrix to determine the Risk Category. Always use the 'Highest' or worse severity if the Severity Rankings for People, Assets, and/or Environment are different.

There are three Risk Categories:

- ☐ Low (Risk Rankings 1 through 9)
- ☐ Medium (Risk Rankings 10 through 17)
- ☐ High (Risk Rankings 18 through 25)

Any hazards that have a Risk Category of 'High' require a Recommendation unless considered ALARP. The recommendation does not have to be a way to remove or mitigate a risk, but may be a recommendation to investigate a hazard or situation where the team may not have the time, resources, expertise etc.

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Any hazards that have a Risk Category of 'Medium' need to be reviewed by the team to determine if the risk is ALARP (As Low As Reasonably Practicable). If the risk is not considered ALARP, a recommendation should be made. This recommendation could be for hazard elimination, prevention, mitigation or for further investigation.

No recommendation is required for hazards that have a Risk Category of 'Low'. However, the team should make recommendations if the hazard can be eliminated or the risk reduced. 'Low' hazards should be managed for continuous improvement.

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			RISK MATRIX

RISK MATRIX

					Likelihood				
					Negligible	Low	Medium	High	Frequent
					No known occurrences in the industry	Know to have occurred in the industry	Occurs on this Rig	Occurs Annually on this Rig	Occurs more than Annually on this Rig
					A	B	C	D	E
Severity	Slight	People	Asset	Environment	1	2	3	4	10
	Minor	Medical Treatment Case	\$10K to \$50K	Less than 1 bbl	5	6	7	11	12
	Significant	Serious Injury Case	\$50K to \$500K	1 bbl to 5 bbl OR Less than 1 ton	8	9	13	18	19
	Severe	Fatality	\$500K to \$5MM	5 bbl to 100 bbl OR Greater than 1 ton	14	15	20	21	22
	Extremely Severe	Multiple Fatalities	Greater than \$5MM	Greater than 100 bbl	16	17	23	24	25

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**APPENDIX III
COMPARTMENT SHEETS**

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33.	Gymnasium/Sauna	67
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35.	Hospital	71
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38.	Laundry and Escape Passage	77
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COMPARTMENT NAME:		A/C Unit Room			
LOCATION: 3 rd Deck, Port Side, across from BOP Control Room					
DIMENSIONS: 5.1m x 7.3m		MANNING: As required			
POWER / FLUID / CONTROL LINES: 120V, Coolant Lines, Rig air, Fresh water, Drill water					
CONTROL SYSTEMS: CU-1 Control Panel					
HVAC / DUCTING: HVAC ducting					
PASSIVE FIRE PROTECTION:					
Deck: A-0		Deckhead: A-60			
Forward Bulkhead: A-60		Aft Bulkhead: A-60			
Port Bulkhead: A-60		Starboard Bulkhead: A-60			
Comments / Recommendations False ceiling in space with a gap of approximately 1m.					
FIRE/GAS DETECTION:					
	Space	Duct		Space	Duct
Constant Manning	<input type="checkbox"/>		Hydrocarbon Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>
Flame Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>	H ₂ S Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>
Heat Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>	Other: _____	<input type="checkbox"/>	<input type="checkbox"/>
Smoke Detector(s)	<input checked="" type="checkbox"/>	<input type="checkbox"/>			
Comments / Recommendations Smoke detectors #ASH-172845 & ASH-172846					
FIRE FIGHTING EQUIPMENT:					
	Space	Adjacent		Space	Adjacent
Dry Powder Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>	CO ₂ Extinguisher(s)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
H ₂ O Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>	Foam Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>
Fixed H ₂ O (Deluge, Sprinklers, etc.)	<input type="checkbox"/>		Fire Water Hose(s)	<input type="checkbox"/>	<input type="checkbox"/>
Fixed Halon	<input type="checkbox"/>		Fixed CO ₂	<input type="checkbox"/>	
Other: _____	<input type="checkbox"/>	<input type="checkbox"/>			
Comments / Recommendations					
COMMUNICATIONS, ETC. :					
Telephone	<input type="checkbox"/>	CCTV	<input type="checkbox"/>	PA Speaker	<input type="checkbox"/>
Fire Alarm Button	<input type="checkbox"/>	Bilge Alarm	<input type="checkbox"/>	Emergency Lighting	<input checked="" type="checkbox"/>
GA Alarm Button	<input type="checkbox"/>	General Alarm	<input type="checkbox"/>	Other: _____	<input type="checkbox"/>

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Comments / Recommendations			
ESCAPE ROUTES: Door exits inboard to passageway			
COMPARTMENT: A/C Unit Room			
FIRE:			
Ignition Sources / Fuel		Preventions (Note EX equipment)	
Electric wiring shorts		Preventive maintenance and inspections	
Consequences		Mitigations	
Possibility of damage to compartment/equipment Possibility of injury to personnel		Firefighting capabilities Availability of medical treatment including medivac	
Risk Rank: 9	Risk Category: Low	ALARP?: Yes	
EXPLOSION:			
Ignition Sources / Fuel		Preventions (Note EX equipment)	
Consequences		Mitigations	
Risk Rank:	Risk Category:	ALARP?: Yes	
FLOOD:			
Hazards		Preventions	
Ruptured , broken piping/valves		Preventive maintenance and inspections Corrosion control	
Consequences		Mitigations	
Damage to compartment		Drainage system Monitoring of pressure on water systems	
Risk Rank: 1	Risk Category: Low	ALARP?: Yes	
OTHER: Electrical shock, burns			
Hazards		Preventions	
Contact with live energy surfaces Contact with hot surfaces		Preventive maintenance and inspections PPE, PTW, energy isolation Labeling of equipment	
Consequences		Mitigations	
Possibility of injury to personnel Possibility of fatality		Availability of medical treatment including medivac	

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Risk Rank: 15	Risk Category: Medium	ALARP?: Yes
RECOMMENDATIONS: Consider providing high voltage PPE for this space, also replace the sign detailing steps to take in high voltage contact situations Consider labeling of hot surfaces		

COMPARTMENT NAME: Aft Lifeboat Deck					
LOCATION: Centerline 2 nd Deck Aft					
DIMENSIONS:			MANNING: 0		
POWER / FLUID / CONTROL LINES: 120v, 480v Rig air Lines Drill water Piping Pneumatic control lines					
CONTROL SYSTEMS: Lifeboat Winch Controls ADCP Controls Lifeboat Battery Chargers CO2 Release for ECR					
HVAC / DUCTING: None Open space - ambient					
PASSIVE FIRE PROTECTION:					
Deck: A-0 Forward Bulkhead: Port Bulkhead:			Deckhead: A-0 Aft Bulkhead: Starboard Bulkhead:		
Comments / Recommendations					
FIRE/GAS DETECTION:					
Constant Manning	Space <input type="checkbox"/>	Duct <input type="checkbox"/>	Hydrocarbon Detector(s)	Space <input type="checkbox"/>	Duct <input type="checkbox"/>
Flame Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>	H ₂ S Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>
Heat Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>	Other: <u>Visible from ECR</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Smoke Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>			
Comments / Recommendations					
FIRE FIGHTING EQUIPMENT:					
Dry Powder Extinguisher(s)	Space <input type="checkbox"/>	Adjacent <input checked="" type="checkbox"/>	CO ₂ Extinguisher(s)	Space <input type="checkbox"/>	Adjacent <input checked="" type="checkbox"/>
H ₂ O Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>	Foam Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>
Fixed H ₂ O (Deluge, Sprinklers, etc.)	<input type="checkbox"/>		Fire Water Hose(s)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Fixed Halon	<input type="checkbox"/>		Fixed CO ₂	<input type="checkbox"/>	
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Other: ☐ ☐ ☐ ☐ ☐ ☐

Comments / Recommendations
 Nearest Fire Station is on the Main Deck
 CO2 Release for the ECR

COMMUNICATIONS, ETC. :

Telephone <input checked="" type="checkbox"/>	CCTV <input checked="" type="checkbox"/>	PA Speaker <input checked="" type="checkbox"/>
Fire Alarm Button <input type="checkbox"/>	Bilge Alarm <input type="checkbox"/>	Emergency Lighting <input checked="" type="checkbox"/>
GA Alarm Button <input checked="" type="checkbox"/>	General Alarm <input checked="" type="checkbox"/>	Other: <input type="checkbox"/>

Comments / Recommendations
 Telephone #267
 General Alarm Button #XS-174271

ESCAPE ROUTES:
 Primary: Up ladders port and stbd to main deck
 Alternate: Forward into ECR

COMPARTMENT: Aft Lifeboat Deck

FIRE:

Ignition Sources / Fuel	Preventions (Note EX equipment)
Diesel tanks in lifeboats	Preventive maintenance and inspections Housekeeping

Consequences	Mitigations
Damage to lifeboat Possibility of injury to personnel	Firefighting capabilities Availability of medical treatment including medivac

Risk Rank: 9	Risk Category: Low	ALARP?: Yes
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EXPLOSION:

Ignition Sources / Fuel	Preventions (Note EX equipment)

Consequences	Mitigations

Risk Rank:	Risk Category:	ALARP?: Yes / No
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FLOOD:

Hazards	Preventions

Consequences	Mitigations

Risk Rank:	Risk Category:	ALARP?: Yes / No
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OTHER:		
Hazards		Preventions
Consequences		Mitigations
Risk Rank:	Risk Category:	ALARP?: Yes / No
RECOMMENDATIONS:		

COMPARTMENT NAME: AHU Unit Room					
LOCATION: Port 2nd deck quarters, aft					
DIMENSIONS: 6.3m x 4.4m				MANNING: As Required	
POWER / FLUID / CONTROL LINES: 120v, 480v					
CONTROL SYSTEMS: #3 AHU Control Panel, 120v Dist. Panel (236403) Panel LP-028					
HVAC / DUCTING: Ventilation ducts					
PASSIVE FIRE PROTECTION:					
Deck: A-60		Deckhead: A-60			
Forward Bulkhead: A-60		Aft Bulkhead: A-60			
Port Bulkhead: A-60		Starboard Bulkhead: A-60			
Comments / Recommendations					
FIRE/GAS DETECTION:					
Constant Manning	Space <input type="checkbox"/>	Duct <input type="checkbox"/>	Hydrocarbon Detector(s)	Space <input type="checkbox"/>	Duct <input type="checkbox"/>
Flame Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>	H ₂ S Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>
Heat Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>	Other: _____	<input type="checkbox"/>	<input type="checkbox"/>
Smoke Detector(s)	<input checked="" type="checkbox"/>	<input type="checkbox"/>			
Comments / Recommendations Smoke Detectors #ASH-172435 & ASH-172436					

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FIRE FIGHTING EQUIPMENT:					
	Space	Adjacent		Space	Adjacent
Dry Powder Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>	CO ₂ Extinguisher(s)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
H ₂ O Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>	Foam Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>
Fixed H ₂ O (Deluge, Sprinklers, etc.)	<input type="checkbox"/>		Fire Water Hose(s)	<input type="checkbox"/>	<input type="checkbox"/>
Fixed Halon	<input type="checkbox"/>		Fixed CO ₂	<input type="checkbox"/>	
Other: _____	<input type="checkbox"/>	<input type="checkbox"/>			

Comments / Recommendations

COMMUNICATIONS, ETC. :			
Telephone	<input type="checkbox"/>	CCTV	<input type="checkbox"/>
Fire Alarm Button	<input type="checkbox"/>	Bilge Alarm	<input type="checkbox"/>
GA Alarm Button	<input type="checkbox"/>	General Alarm	<input checked="" type="checkbox"/>
		PA Speaker	<input checked="" type="checkbox"/>
		Emergency Lighting	<input checked="" type="checkbox"/>
		Other:	<input type="checkbox"/>

Comments / Recommendations

ESCAPE ROUTES:
Exit stbd to passageway


COMPARTMENT: AHU Unit Room

FIRE:		
Ignition Sources / Fuel		Preventions (Note EX equipment)
Electric wiring shorts		Preventive maintenance and inspections
Consequences		Mitigations
Damage to equipment/compartment Possibility of injury to personnel		Firefighting capabilities Availability of medical treatment including medivac
Risk Rank: 9	Risk Category: Low	ALARP?: Yes

EXPLOSION:		
Ignition Sources / Fuel		Preventions (Note EX equipment)
Consequences		Mitigations
Risk Rank:	Risk Category:	ALARP?: Yes / No


FLOOD:	
Hazards	Preventions
	Drains.

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Consequences		Mitigations	
Risk Rank:	Risk Category:	ALARP?: Yes / No	
OTHER: Electrical shock			
Hazards		Preventions	
Contact with live energy sources		PTW, energy isolation, PPE	
Consequences		Mitigations	
Possibility of injury to personnel Possibility of fatality		Availability of medical treatment including medivac	
Risk Rank: 15	Risk Category: Medium	ALARP?: Yes	
RECOMMENDATIONS:			

COMPARTMENT NAME: Auxiliary Motor Control Room (MCC)- Port					
LOCATION: 3 rd Deck Aft near Engine Control Room					
DIMENSIONS: 7.5 x 4.2			MANNING: As Required		
POWER / FLUID / CONTROL LINES:					
11kV, 120V 230V CO2 lines Fresh water lines					
CONTROL SYSTEMS:					
Sound powered phone junction box, Rig Air Compressor #4 PA 120V Dist. Panel (248003) Main UPS Dist. Board, 11kV Switchboards Switches for supply fan SF-30, and exhaust fan EF-32			PA 120V/230V Dist. Panel (236048) Power for HiTec, Drawworks, mud pumps, and agitators Power for Lube Oil #1 and Fuel Oil #1 Service Pumps Network cabling		
HVAC / DUCTING:					
Ventilation fan Fire Dampers (FD-03, FD-09, FD-51, FD-53)					
PASSIVE FIRE PROTECTION:					
Deck: A-60		Deckhead: A-60			
Forward Bulkhead: A-60		Aft Bulkhead: A-0			
Port Bulkhead: A-60		Starboard Bulkhead: A-60			
Comments / Recommendations					
FIRE/GAS DETECTION:					
Constant Manning	Space <input type="checkbox"/>	Duct	Hydrocarbon Detector(s)	Space <input type="checkbox"/>	Duct <input type="checkbox"/>
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Flame Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>	H ₂ S Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>
Heat Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>	Other: _____	<input type="checkbox"/>	<input type="checkbox"/>
Smoke Detector(s)	<input checked="" type="checkbox"/>	<input type="checkbox"/>			

Comments / Recommendations
Smoke detectors ASH172905, ASH172906, & ASH172907

FIRE FIGHTING EQUIPMENT:					
	Space	Adjacent		Space	Adjacent
Dry Powder Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>	CO ₂ Extinguisher(s)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
H ₂ O Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>	Foam Extinguisher(s)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Fixed H ₂ O (Deluge, Sprinklers, etc.)	<input type="checkbox"/>		Fire Water Hose(s)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Fixed Halon	<input type="checkbox"/>		Fixed CO ₂	<input checked="" type="checkbox"/>	
Other: _____	<input type="checkbox"/>	<input type="checkbox"/>			

Comments / Recommendations
CO₂ Fire Extinguisher #76
CO₂ release for Switchgear Room (Port) in space
Fire Station #26 in #3 Engine Room to port

COMMUNICATIONS, ETC. :			
Telephone	<input checked="" type="checkbox"/>	CCTV	<input type="checkbox"/>
Fire Alarm Button	<input checked="" type="checkbox"/>	Bilge Alarm	<input type="checkbox"/>
GA Alarm Button	<input type="checkbox"/>	General Alarm	<input checked="" type="checkbox"/>
		PA Speaker	<input checked="" type="checkbox"/>
		Emergency Lighting	<input checked="" type="checkbox"/>
		Other: _____	<input type="checkbox"/>

Comments / Recommendations
Telephone #378
Fire Alarm Buttons XS172918 & XS172919

ESCAPE ROUTES:
Exit stbd fwd into passageway, Exit stbd aft in MCC (Stbd), Exit aft to Switchgear Room, Exit port to #3 Engine Room

COMPARTMENT: Auxiliary MCC Room

FIRE:	
Ignition Sources / Fuel	Preventions (Note EX equipment)
Electric wiring short and switchboards	Preventive maintenance and inspections
Consequences	Mitigations
Possibility of damage to compartment/equipment Possibility of injury to personnel	Firefighting capabilities Availability of medical treatment including medivac Ability to effect repairs, redirect power
Risk Rank: 9	Risk Category: Low ALARP?: Yes

EXPLOSION:	
Ignition Sources / Fuel	Preventions (Note EX equipment)
Electric wiring short and switchboards	Preventive maintenance and inspections
Consequences	Mitigations
Possibility of damage to compartment/equipment Possibility of injury to personnel	Firefighting capabilities Availability of medical treatment including medivac Ability to effect repairs, redirect power

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Risk Rank: 9	Risk Category: Low	ALARP?: Yes
FLOOD:		
Hazards	Preventions	
	Drains.	
Consequences	Mitigations	
Risk Rank:	Risk Category:	ALARP?: Yes / No
OTHER: Electrical shock		
Hazards	Preventions	
Contact with live energy sources	PPE, PTW, energy isolation Preventive maintenance and inspections	
Consequences	Mitigations	
Possibility of injury to personnel Possibility of fatality	Availability of medical treatment including medivac Availability of high voltage PPE	
Risk Rank: 15	Risk Category: Medium	ALARP?: Yes
RECOMMENDATIONS:		
Consider providing high voltage PPE for this space. Also consider placement of a sign detailing steps to take in high voltage contact situations.		

COMPARTMENT NAME:	Auxiliary Derrick		
LOCATION:	Top of BOP House		
DIMENSIONS: 4m x 5m	MANNING: As required		
POWER / FLUID / CONTROL LINES:			
120V Rig air lines Hydraulic lines Power for Fog Signal			
CONTROL SYSTEMS:			
Controls for fwd air tugger (I-108-06) Controls for aft air tugger (I-108-07) Radio Communications Junction Box (CJBAD06) Hydraulic Lines for Auxiliary Drawworks Control cables for Auxiliary Drawworks			
HVAC / DUCTING:			
None - open air			

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PASSIVE FIRE PROTECTION:					
Deck:	A-0	Deckhead:	N/A		
Forward Bulkhead:	N/A	Aft Bulkhead:	N/A		
Port Bulkhead:	N/A	Starboard Bulkhead:	N/A		
Comments / Recommendations Outside space					
FIRE/GAS DETECTION:					
	Space	Duct		Space	Duct
Constant Manning	<input type="checkbox"/>		Hydrocarbon Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>
Flame Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>	H ₂ S Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>
Heat Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>	Other: _____	<input type="checkbox"/>	<input type="checkbox"/>
Smoke Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>			
Comments / Recommendations Area visible to other work areas that are frequently crewed					
FIRE FIGHTING EQUIPMENT:					
	Space	Adjacent		Space	Adjacent
Dry Powder Extinguisher(s)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	CO ₂ Extinguisher(s)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
H ₂ O Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>	Foam Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>
Fixed H ₂ O (Deluge, Sprinklers, etc.)	<input type="checkbox"/>		Fire Water Hose(s)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Fixed Halon	<input type="checkbox"/>		Fixed CO ₂	<input type="checkbox"/>	
Other: _____	<input type="checkbox"/>	<input type="checkbox"/>			
Comments / Recommendations Dry Chemical Extinguisher #171 Fire Stations and Extinguishers located on the Main Deck					
COMMUNICATIONS, ETC. :					
Telephone	<input checked="" type="checkbox"/>	CCTV	<input checked="" type="checkbox"/>	PA Speaker	<input checked="" type="checkbox"/>
Fire Alarm Button	<input checked="" type="checkbox"/>	Bilge Alarm	<input type="checkbox"/>	Emergency Lighting	<input type="checkbox"/>
GA Alarm Button	<input type="checkbox"/>	General Alarm	<input checked="" type="checkbox"/>	Other: _____	<input type="checkbox"/>
Comments / Recommendations Telephone #120					
ESCAPE ROUTES:					
Primary: Down ladder on fwd side of BOP House to Main Deck Alternate: Down ladder on stbd side of BOP House to Drill Floor					
COMPARTMENT: Auxiliary Derrick					
FIRE:					
Ignition Sources / Fuel			Preventions (Note EX equipment)		
Electric wiring shorts			Preventive maintenance and inspections Eex rated equipment		
Consequences			Mitigations		
Possibility of damage to equipment Possibility of injury to personnel			Firefighting capabilities Availability of medical treatment including medivac		
Risk Rank: 9	Risk Category: Low		ALARP?: Yes		
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EXPLOSION:		
Ignition Sources / Fuel		Preventions (Note EX equipment)
Electric wiring shorts Gas from the well		Preventive maintenance and inspections Eex rated equipment
Consequences		Mitigations
Possibility of damage to equipment Possibility of injury to personnel		Firefighting capabilities Availability of medical treatment including medivac
Risk Rank: 9	Risk Category: Low	ALARP?: Yes
FLOOD:		
Hazards		Preventions
		Drains.
Consequences		Mitigations
Risk Rank:	Risk Category:	ALARP?: Yes / No
OTHER: Pressure		
Hazards		Preventions
Rupture/break in hydraulic line		Preventive maintenance and inspections PPE, PTW, energy isolation
Consequences		Mitigations
Possibility of injury to personnel		Availability of medical treatment including medivac
Risk Rank: 6	Risk Category: Low	ALARP?: Yes
RECOMMENDATIONS:		

COMPARTMENT NAME:	Battery Room		
LOCATION:	Port fwd main deck, stbd side of CCR/Bridge		
DIMENSIONS:	1.5m x 1.5m	MANNING:	As required
POWER / FLUID / CONTROL LINES:			
Power cables from batteries Cables for smoke and HC detectors Cables for space heater			

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CONTROL SYSTEMS:					
Switch for exhaust fan					
HVAC / DUCTING:					
Forced exhaust to deckhead					
PASSIVE FIRE PROTECTION:					
Deck:	A-60	Deckhead:	A-60		
Forward Bulkhead:	A-60	Aft Bulkhead:	A-60		
Port Bulkhead:	A-60	Starboard Bulkhead:	A-60		
Comments / Recommendations					
FIRE/GAS DETECTION:					
Constant Manning	Space <input type="checkbox"/>	Duct <input type="checkbox"/>	Hydrocarbon Detector(s)	Space <input checked="" type="checkbox"/>	Duct <input type="checkbox"/>
Flame Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>	H ₂ S Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>
Heat Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>	Other: _____	<input type="checkbox"/>	<input type="checkbox"/>
Smoke Detector(s)	<input checked="" type="checkbox"/>	<input type="checkbox"/>			
Comments / Recommendations					
ASH 172210, CGD 172201					
FIRE FIGHTING EQUIPMENT:					
Dry Powder Extinguisher(s)	Space <input type="checkbox"/>	Adjacent <input type="checkbox"/>	CO ₂ Extinguisher(s)	Space <input checked="" type="checkbox"/>	Adjacent <input checked="" type="checkbox"/>
H ₂ O Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>	Foam Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>
Fixed H ₂ O (Deluge, Sprinklers, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	Fire Water Hose(s)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Fixed Halon	<input type="checkbox"/>	<input type="checkbox"/>	Fixed CO ₂	<input type="checkbox"/>	<input type="checkbox"/>
Other: _____	<input type="checkbox"/>	<input type="checkbox"/>			
Comments / Recommendations					
COMMUNICATIONS, ETC. :					
Telephone	<input type="checkbox"/>	CCTV	<input type="checkbox"/>	PA Speaker	<input type="checkbox"/>
Fire Alarm Button	<input type="checkbox"/>	Bilge Alarm	<input type="checkbox"/>	Emergency Lighting	<input type="checkbox"/>
GA Alarm Button	<input type="checkbox"/>	General Alarm	<input type="checkbox"/>	Other:	<input type="checkbox"/>
Comments / Recommendations					
ESCAPE ROUTES:					
One door to main deck, follow walkway stbd to stairs to lifeboat deck					

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COMPARTMENT: Battery Room		
FIRE:		
Ignition Sources / Fuel		Preventions (Note EX equipment)
Consequences		Mitigations
Risk Rank:	Risk Category:	ALARP?: Yes / No
EXPLOSION:		
Ignition Sources / Fuel		Preventions (Note EX equipment)
Battery gases, electrical wiring shorts		Preventive maintenance and inspections
Consequences		Mitigations
Damage to compartment/equipment Possibility of injury to personnel		Firefighting capabilities Availability of medical treatment including medivac
Risk Rank: 9	Risk Category: Low	ALARP?: Yes
FLOOD:		
Hazards		Preventions
		Drains.
Consequences		Mitigations
Risk Rank:	Risk Category:	ALARP?: Yes / No
OTHER: Toxic fumes, chemical burns		
Hazards		Preventions
Exposure to battery gases Exposure to battery acid		PPE Preventive maintenance and inspections
Consequences		Mitigations
Possibility of injury to personnel		Availability of eyewash station Availability of medical treatment including medivac
Risk Rank: 9	Risk Category: Low	ALARP?: Yes
RECOMMENDATIONS:		

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Consider the installation of a PPE box for the Battery room . Also consider the installation of an eyewash station

COMPARTMENT NAME:		BOP Accumulator Room	
LOCATION:		Centerline 3 rd Deck- Forward of the BOP Control Room	
DIMENSIONS:		MANNING: As required	
POWER / FLUID / CONTROL LINES:			
120V Pneumatic Control Lines High pressure air lines		Rig air lines Heater power supply cable Cameron Controls supply cables	
CONTROL SYSTEMS:			
Accumulator Controls Diverter Controls Controls for Mixing System			
HVAC / DUCTING:			
HVAC ventilation ducts			
PASSIVE FIRE PROTECTION:			
Deck: A-0		Deckhead: A-60	
Forward Bulkhead: A-60		Aft Bulkhead: A-60	
Port Bulkhead: A-60		Starboard Bulkhead: A-60	
Comments / Recommendations			
FIRE/GAS DETECTION:			
	Space	Duct	
Constant Manning	<input type="checkbox"/>		Hydrocarbon Detector(s)
Flame Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>	H ₂ S Detector(s)
Heat Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>	Other: _____
Smoke Detector(s)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Comments / Recommendations			
Smoke Detectors #ASH-172928, ASH-172929 & ASH-172930			
FIRE FIGHTING EQUIPMENT:			
	Space	Adjacent	
Dry Powder Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>	CO ₂ Extinguisher(s)
H ₂ O Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>	Foam Extinguisher(s)
Fixed H ₂ O (Deluge, Sprinklers, etc.)	<input type="checkbox"/>		Fire Water Hose(s)
Fixed Halon	<input type="checkbox"/>		Fixed CO ₂
Other: _____	<input type="checkbox"/>	<input type="checkbox"/>	
Comments / Recommendations			
Nearest Fire Station is in the Moonpool Area			
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COMMUNICATIONS, ETC. :

Telephone	<input type="checkbox"/>	CCTV	<input type="checkbox"/>	PA Speaker	<input checked="" type="checkbox"/>
Fire Alarm Button	<input type="checkbox"/>	Bilge Alarm	<input type="checkbox"/>	Emergency Lighting	<input checked="" type="checkbox"/>
GA Alarm Button	<input type="checkbox"/>	General Alarm	<input checked="" type="checkbox"/>	Other:	<input type="checkbox"/>

Comments / Recommendations

ESCAPE ROUTES:

Primary: Exit aft into the BOP Control Room, then stbd to the moonpool area

COMPARTMENT: BOP Accumulator Room

FIRE:

Ignition Sources / Fuel

Electric wiring shorts

Preventions (Note EX equipment)

Preventive maintenance and inspections

Consequences

Possibility of damage to compartment/equipment
possibility of injury to personnel

Mitigations

Firefighting capabilities
Availability of medical treatment including medivac

Risk Rank: 9

Risk Category: Low

ALARP?: Yes

EXPLOSION:

Ignition Sources / Fuel

Preventions (Note EX equipment)

Consequences

Mitigations

Risk Rank:

Risk Category:

ALARP?: Yes / No

FLOOD:

Hazards

Preventions

Drains.

Consequences

Mitigations

Risk Rank:

Risk Category:

ALARP?: Yes / No

OTHER: Pressure

Hazards

Preventions

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Contact with live energy sources Rupture/broken high pressure piping/fittings		PPE, PTW, energy isolation Preventive maintenance and inspections
Consequences		Mitigations
Possibility of injury to personnel		Availability of medical treatment including medivac
Risk Rank: 6	Risk Category: Low	ALARP?: Yes
RECOMMENDATIONS:		

COMPARTMENT NAME: BOP Control Room					
LOCATION: 3 rd Deck- Port Side outboard of Moonpool					
DIMENSIONS: 6.30m x 11.20m			MANNING: As required		
POWER / FLUID / CONTROL LINES:					
120V Outlet and lighting cables BOP control lines, fluid mixing lines Glycol lines, heater power supply cables Pump skid control signals cables 480V power supplies for Pumps 1,2, & 3 Firemain, power cables for cutter and grinder			Power cables for Mixing Unit Mixing Unit control signals cables Power cables for High Pressure Test Pump Power cables for hose fittings press Lube oil lines, pneumatic control lines Rig air, potable water lines		
CONTROL SYSTEMS:					
High Pressure Test Pump Controls Fluid Mixing Controls BOP Pump Controls					
HVAC / DUCTING:					
HVAC ventilation ducts Fire Damper (FD-33)					
PASSIVE FIRE PROTECTION:					
Deck: A-0		Deckhead: A-60			
Forward Bulkhead: A-60		Aft Bulkhead: A-0			
Port Bulkhead: A-60		Starboard Bulkhead: A-60			
Comments / Recommendations					
FIRE/GAS DETECTION:					
Constant Manning	Space <input type="checkbox"/>	Duct <input type="checkbox"/>	Hydrocarbon Detector(s)	Space <input type="checkbox"/>	Duct <input type="checkbox"/>
Flame Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>	H ₂ S Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>
Heat Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>	Other: _____	<input type="checkbox"/>	<input type="checkbox"/>
Smoke Detector(s)	<input checked="" type="checkbox"/>	<input type="checkbox"/>			
Comments / Recommendations Smoke Detectors #ASH-172926 & ASH-172927					
FIRE FIGHTING EQUIPMENT:					
Dry Powder Extinguisher(s)	Space <input type="checkbox"/>	Adjacent <input type="checkbox"/>	CO ₂ Extinguisher(s)	Space <input checked="" type="checkbox"/>	Adjacent <input type="checkbox"/>
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H ₂ O Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>	Foam Extinguisher(s)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Fixed H ₂ O (Deluge, Sprinklers, etc.)	<input type="checkbox"/>		Fire Water Hose(s)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Fixed Halon	<input type="checkbox"/>		Fixed CO ₂	<input type="checkbox"/>	
Other:	<input type="checkbox"/>	<input type="checkbox"/>			

Comments / Recommendations

COMMUNICATIONS, ETC. :

Telephone	<input checked="" type="checkbox"/>	CCTV	<input type="checkbox"/>	PA Speaker	<input checked="" type="checkbox"/>
Fire Alarm Button	<input type="checkbox"/>	Bilge Alarm	<input type="checkbox"/>	Emergency Lighting	<input checked="" type="checkbox"/>
GA Alarm Button	<input type="checkbox"/>	General Alarm	<input checked="" type="checkbox"/>	Other:	<input type="checkbox"/>

Comments / Recommendations

Telephone #369

ESCAPE ROUTES:

Primary: Stbd into Moonpool area, then to Main Deck
Alternate: Port into Passageway, then to Main Deck

COMPARTMENT: BOP Control Room

FIRE:

Ignition Sources / Fuel

Electrical wiring shorts

Preventions (Note EX equipment)

Preventive maintenance and inspections

Consequences

Damage to compartment/space
Possibility of loss of BOP control
Possibility of injury to personnel

Mitigations

Firefighting capabilities
Availability of medical treatment including medivac
Redundant control - ROV intervention

Risk Rank: 17

Risk Category: Medium

ALARP?: Yes

EXPLOSION:

Ignition Sources / Fuel

Preventions (Note EX equipment)

Consequences

Mitigations

Risk Rank:

Risk Category:

ALARP?: Yes / No

FLOOD:

Hazards

Preventions

Drains.

Consequences

Mitigations

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Risk Rank:	Risk Category:	ALARP?: Yes / No	
OTHER: Pressure			
Hazards		Preventions	
Contact with live energy sources Broken/ruptured hp lines/fittings		PPE, PTW, energy isolation Preventive maintenance and inspections	
Consequences		Mitigations	
Possibility of injury to personnel		Availability of medical treatment including medivac	
Risk Rank: 6	Risk Category: Low	ALARP?: Yes	
RECOMMENDATIONS:			

COMPARTMENT NAME:		Bridge/ CCR	
LOCATION:		Port forward main deck	
DIMENSIONS: 18m x 9m x 4.5m		MANNING: Two on watch 24 hrs. a day	
POWER / FLUID / CONTROL LINES:			
Overhead: Air line controlling air dampers, ventilation ducting, CO2 supply lines Below deck – Helideck drain lines, air conditioner condensate drains, potable water lines, sewage lines, Network cables, sound powered telephone junction boxes and power cabling. 120v			
CONTROL SYSTEMS:			
SDP, SVC, STC and SSS operator stations. Fixed VHF and GMDSS communications. BOP control panel. Current profiler. Helideck, CCR perimeter, spotlight and deck lighting panels. Fire & Gas/ ESD Panel. Forward/ aft radar consoles. 2 x GPS, CCTV, Air/ Elec. Horn controls, UPS #9.			
HVAC / DUCTING:			
Fire dampers #49 and #50- controlled locally near stbd watertight door. SVC fire and Gas zone F1 (tag # FZ-172001), Fire and Gas outputs F (SOV-172201) and in the SVC ESD page.			
PASSIVE FIRE PROTECTION:			
Deck:	A60 Bulkheads	Deckhead:	A60
Forward Bulkhead:	A60 bulkheads and windows	Aft Bulkhead:	A60 bulkhead
Port Bulkhead:	A60 bulkheads and windows	Starboard Bulkhead:	A60 bulkhead and windows
Comments / Recommendations			
FIRE/GAS DETECTION:			
	Space	Duct	
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Constant Manning	<input checked="" type="checkbox"/>		Hydrocarbon Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>
Flame Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>	H ₂ S Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>
Heat Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>	Other: _____	<input type="checkbox"/>	<input type="checkbox"/>
Smoke Detector(s)	<input checked="" type="checkbox"/>	<input type="checkbox"/>			

Comments / Recommendations

FIRE FIGHTING EQUIPMENT:

	Space	Adjacent		Space	Adjacent
Dry Powder Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>	CO ₂ Extinguisher(s)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
H ₂ O Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>	Foam Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>
Fixed H ₂ O (Deluge, Sprinklers, etc.)	<input type="checkbox"/>		Fire Water Hose(s)	<input type="checkbox"/>	<input type="checkbox"/>
Fixed Halon	<input type="checkbox"/>		Fixed CO ₂	<input checked="" type="checkbox"/>	
Other: _____	<input type="checkbox"/>	<input type="checkbox"/>			

Comments / Recommendations

COMMUNICATIONS, ETC. :

Telephone	<input checked="" type="checkbox"/>	CCTV	<input type="checkbox"/>	PA Speaker	<input checked="" type="checkbox"/>
Fire Alarm Button	<input checked="" type="checkbox"/>	Bilge Alarm	<input checked="" type="checkbox"/>	Emergency Lighting	<input checked="" type="checkbox"/>
GA Alarm Button	<input checked="" type="checkbox"/>	General Alarm	<input checked="" type="checkbox"/>	Other: Toxic/Combustible gas alarm buttons.	<input type="checkbox"/>

Comments / Recommendations

ESCAPE ROUTES:

Port and Stbd to main deck, Stbd aft 2nd deck entry through watertight door/radio room/door to lifeboat deck

COMPARTMENT: Bridge/CCR

FIRE:

Ignition Sources / Fuel		Preventions (Note EX equipment)	
Heli-fuel piping over CCR. Class A material Electrical wiring/short in equipment		Preventive maintenance and inspections Housekeeping	
Consequences		Mitigations	
Failure or loss of DP, or SVC controlled systems commanded by CCR. Loss of communications from CCR. Unable to operate BOP contr. from CCR. Possibility of injury to personnel		Firefighting capabilities Transfer control of these systems to ECR/ Drill Floor. Full A60 perimeter rating. Availability of medical treatment including medivac	
Risk Rank: 14	Risk Category: Medium	ALARP?: Yes	

EXPLOSION:

Ignition Sources / Fuel	Preventions (Note EX equipment)
Helicopter crash (major hazard tables)	
Consequences	Mitigations

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Risk Rank:	Risk Category:	ALARP?: Yes / No	
FLOOD:			
Hazards		Preventions	
Leaking Pot water lines Windows broken and rain or sea water ingress.		Preventive maintenance and inspections	
Consequences		Mitigations	
Effects on electrical components in CCR		Drains.	
Risk Rank: 2	Risk Category: Low	ALARP?: Yes	
OTHER:			
Hazards		Preventions	
Consequences		Mitigations	
Risk Rank:	Risk Category:	ALARP?: Yes / No	
RECOMMENDATIONS:			

COMPARTMENT NAME:	Cement Room		
LOCATION:	Stbd Mud Module Main Deck		
DIMENSIONS:	6m x 10m x 4m	MANNING:	0
POWER / FLUID / CONTROL LINES:			
120V, 480V Mud, drill water, bulk, rig air, pot water Sea water, fire main Heater power supply cables		Power and control cables for SVC-OS-07 Power and control cables for Cement Tanks Pneumatic Control Lines Power cables for Mud Pit Exhaust Fans Fire Main	
CONTROL SYSTEMS:			
Halliburton Control Unit SVC OS-07, Cement Day Tank Weight Sensors Emergency light panels, Panel LP-001 (236001)		Control for Exhaust Fan EF-23 Control for Supply Fan SF-22 Instrument Junction Boxes Cement 480V Panel (236501)	
HVAC / DUCTING:			
HVAC Ventilation Ducting Mud Pit Room Exhaust Ducts			

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PASSIVE FIRE PROTECTION:

Deck:	A-0	Deckhead:	A-0
Forward Bulkhead:	A-0	Aft Bulkhead:	A-0
Port Bulkhead:	A-0	Starboard Bulkhead:	A-0

Comments / Recommendations

FIRE/GAS DETECTION:

	Space	Duct		Space	Duct
Constant Manning	<input type="checkbox"/>		Hydrocarbon Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>
Flame Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>	H ₂ S Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>
Heat Detector(s)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Other: _____	<input type="checkbox"/>	<input type="checkbox"/>
Smoke Detector(s)	<input checked="" type="checkbox"/>	<input type="checkbox"/>			

Comments / Recommendations

Heat Detector #TSH-172325
Smoke Detectors #ASH-172333, ASH-172326 & ASH-172324

FIRE FIGHTING EQUIPMENT:

	Space	Adjacent		Space	Adjacent
Dry Powder Extinguisher(s)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	CO ₂ Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>
H ₂ O Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>	Foam Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>
Fixed H ₂ O (Deluge, Sprinklers, etc.)	<input type="checkbox"/>		Fire Water Hose(s)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Fixed Halon	<input type="checkbox"/>		Fixed CO ₂	<input type="checkbox"/>	
Other: _____	<input type="checkbox"/>	<input type="checkbox"/>			

Comments / Recommendations

COMMUNICATIONS, ETC. :

Telephone	<input checked="" type="checkbox"/>	CCTV	<input type="checkbox"/>	PA Speaker	<input checked="" type="checkbox"/>
Fire Alarm Button	<input type="checkbox"/>	Bilge Alarm	<input type="checkbox"/>	Emergency Lighting	<input checked="" type="checkbox"/>
GA Alarm Button	<input type="checkbox"/>	General Alarm	<input checked="" type="checkbox"/>	Other: _____	<input type="checkbox"/>

Comments / Recommendations

Telephone #145

ESCAPE ROUTES:

Primary: Exit Stbd onto Main Deck near Halliburton Unit
Alternate: Exit Forward onto Main Deck at Pipe Storage
Alternate: Exit aft onto Main Deck at Riser Storage

COMPARTMENT: Cement Unit Room

FIRE:

Ignition Sources / Fuel

Electric wiring/shorts
Hydraulic fluid,
Gas from the well

Preventions (Note EX equipment)

Preventive maintenance and inspections
Housekeeping
Well control procedures, gas handling
Ventilation

Consequences

Damage to compartment/equipment
Possibility of injury to personnel

Mitigations

Firefighting capabilities
Availability of medical treatment including medivac


Risk Rank:	14	Risk Category:	Medium	ALARP?:	Yes
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EXPLOSION:

Ignition Sources / Fuel

Preventions (Note EX equipment)

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Electric wiring/shorts Gas from the well		Preventive maintenance and inspections Housekeeping Well control procedures, gas handling Ventilation	
Consequences		Mitigations	
Damage to compartment/equipment Possibility of injury to personnel		Firefighting capabilities Availability of medical treatment including medivac	
Risk Rank: 14	Risk Category: Medium	ALARP?: Yes	
FLOOD:			
Hazards		Preventions	
		Drains.	
Consequences		Mitigations	
Risk Rank:	Risk Category:	ALARP?: Yes / No	
OTHER: Pressure, chemicals			
Hazards		Preventions	
Contact with live energy sources Exposure to chemicals/cement additives High pressure piping valves		PPE, PTW, energy isolation Preventive maintenance and inspection including ultrasound of piping	
Consequences		Mitigations	
Possibility of injury to personnel Possibility of fatality		Availability of MSDS information Availability of medical treatment including medivac	
Risk Rank: 15	Risk Category: Medium	ALARP?: Yes	
RECOMMENDATIONS:			
Consider the placement of warning signs on the outside aft and fwd doors to the Cement Unit warning of high noise levels			

COMPARTMENT NAME:	Change Room, Second Deck		
LOCATION:	2 nd deck, accommodation block, port aft		
DIMENSIONS:	Approx. 5m x 3.5m	MANNING:	Intermittent
POWER / FLUID / CONTROL LINES:			
Pot water, sewage lines, 120V outlet			

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CONTROL SYSTEMS:

Light switches

HVAC / DUCTING:

Fire zone F-07

PASSIVE FIRE PROTECTION:

Deck:	A-0	Deckhead:	A-0
Forward Bulkhead:	B-30	Aft Bulkhead:	A-60
Port Bulkhead:	A-0	Starboard Bulkhead:	B-30

Comments / Recommendations

FIRE/GAS DETECTION:

	Space	Duct		Space	Duct
Constant Manning	<input type="checkbox"/>		Hydrocarbon Detector(s)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Flame Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>	H ₂ S Detector(s)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Heat Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>	Other: _____	<input type="checkbox"/>	<input type="checkbox"/>
Smoke Detector(s)	<input checked="" type="checkbox"/>	<input type="checkbox"/>			

Comments / Recommendations

ASH 172438

FIRE FIGHTING EQUIPMENT:

	Space	Adjacent		Space	Adjacent
Dry Powder Extinguisher(s)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	CO ₂ Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>
H ₂ O Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>	Foam Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>
Fixed H ₂ O (Deluge, Sprinklers, etc.)	<input checked="" type="checkbox"/>		Fire Water Hose(s)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Fixed Halon	<input type="checkbox"/>		Fixed CO ₂	<input type="checkbox"/>	
Other: _____	<input type="checkbox"/>	<input type="checkbox"/>			

Comments / Recommendations

COMMUNICATIONS, ETC. :


Telephone	<input type="checkbox"/>	CCTV	<input type="checkbox"/>	PA Speaker	<input checked="" type="checkbox"/>
Fire Alarm Button	<input type="checkbox"/>	Bilge Alarm	<input type="checkbox"/>	Emergency Lighting	<input checked="" type="checkbox"/>
GA Alarm Button	<input type="checkbox"/>	General Alarm	<input checked="" type="checkbox"/>	Other:	<input type="checkbox"/>

Comments / Recommendations

ESCAPE ROUTES:

Out stbd side door then: Primary – Forward to transit room then out to lifeboat deck.
Secondary – Aft through door to machinery space and up stair to port side main deck.

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COMPARTMENT: Change Room 2 nd Deck		
FIRE:		
Ignition Sources / Fuel		Preventions (Note EX equipment)
Consequences		Mitigations
Risk Rank:	Risk Category:	ALARP?: Yes / No
EXPLOSION:		
Ignition Sources / Fuel		Preventions (Note EX equipment)
Consequences		Mitigations
Risk Rank:	Risk Category:	ALARP?: Yes / No
FLOOD:		
Hazards		Preventions
		Drains.
Consequences		Mitigations
Risk Rank:	Risk Category:	ALARP?: Yes / No
OTHER: Biological, chemical		
Hazards		Preventions
Exposure to sewage while making repairs Exposure to cleaning chemicals		PPE
Consequences		Mitigations
Possibility of injury to personnel/long term health effects		Availability of medical treatment Availability of MSDS information
Risk Rank: 13	Risk Category: Medium	ALARP?: Yes
RECOMMENDATIONS:		

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COMPARTMENT NAME:		Cinema / Conference room			
LOCATION:		Fwd mid-ships port side of mess-deck			
DIMENSIONS: 13.5m X 8m		MANNING: Intermittent			
POWER / FLUID / CONTROL LINES: Network cables and power cables					
CONTROL SYSTEMS: Watch call alarm system					
HVAC / DUCTING: Air condition and fire dampers					
PASSIVE FIRE PROTECTION:					
Deck: A		Deckhead: A			
Forward Bulkhead: B-30		Aft Bulkhead: B-30			
Port Bulkhead: C		Starboard Bulkhead: B-30			
Comments / Recommendations					
FIRE/GAS DETECTION:					
	Space	Duct		Space	Duct
Constant Manning	<input type="checkbox"/>		Hydrocarbon Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>
Flame Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>	H ₂ S Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>
Heat Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>	Other: _____	<input type="checkbox"/>	<input type="checkbox"/>
Smoke Detector(s)	<input checked="" type="checkbox"/>	<input type="checkbox"/>			
Comments / Recommendations					
FIRE FIGHTING EQUIPMENT:					
	Space	Adjacent		Space	Adjacent
Dry Powder Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>	CO ₂ Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>
H ₂ O Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>	Foam Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>
Fixed H ₂ O (Deluge, Sprinklers, etc.)	<input checked="" type="checkbox"/>		Fire Water Hose(s)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Fixed Halon	<input type="checkbox"/>		Fixed CO ₂	<input type="checkbox"/>	
Other: _____	<input type="checkbox"/>	<input type="checkbox"/>			


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Comments / Recommendations		
COMMUNICATIONS, ETC. :		
Telephone <input type="checkbox"/>	CCTV <input type="checkbox"/>	PA Speaker <input checked="" type="checkbox"/>
Fire Alarm Button <input type="checkbox"/>	Bilge Alarm <input type="checkbox"/>	Emergency Lighting <input checked="" type="checkbox"/>
GA Alarm Button <input type="checkbox"/>	General Alarm <input type="checkbox"/>	Other: <input type="checkbox"/>
Comments / Recommendations		
ESCAPE ROUTES:		
Follow Exit signs to the main deck		

COMPARTMENT: Cinema /Conference Room		
FIRE:		
Ignition Sources / Fuel		Preventions (Note EX equipment)
Electric wiring shorts Class A materials		Preventive maintenance and inspections Housekeeping
Consequences		Mitigations
Damage to compartment Possibility of injury to personnel		Firefighting capabilities Availability of medical treatment including medivac
Risk Rank: 9	Risk Category: Low	ALARP?: Yes
EXPLOSION:		
Ignition Sources / Fuel		Preventions (Note EX equipment)
Consequences		Mitigations
Risk Rank:	Risk Category:	ALARP?: Yes / No
FLOOD:		
Hazards		Preventions
		Drains.
Consequences		Mitigations
Risk Rank:	Risk Category:	ALARP?: Yes / No

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OTHER:		
Hazards		Preventions
Consequences		Mitigations
Risk Rank:	Risk Category:	ALARP?: Yes / No
RECOMMENDATIONS:		

COMPARTMENT NAME: Client Office					
LOCATION: Fwd of Port Change Room 2nd deck					
DIMENSIONS: 8.5m x 3.5m			MANNING: Intermittent		
POWER / FLUID / CONTROL LINES:					
120v					
CONTROL SYSTEMS:					
HVAC / DUCTING:					
Air conditioning ducts					
PASSIVE FIRE PROTECTION:					
Deck: A		Overhead: A			
Forward Bulkhead: C		Aft Bulkhead: C			
Port Bulkhead: A-60		Starboard Bulkhead: B-30			
Comments / Recommendations					
FIRE/GAS DETECTION:					
	Space	Duct		Space	Duct
Constant Manning	<input type="checkbox"/>		Hydrocarbon Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>
Flame Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>	H ₂ S Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>
Heat Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>	Other: _____	<input type="checkbox"/>	<input type="checkbox"/>
Smoke Detector(s)	<input checked="" type="checkbox"/>	<input type="checkbox"/>			
Comments / Recommendations					

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FIRE FIGHTING EQUIPMENT:					
Dry Powder Extinguisher(s)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	CO ₂ Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>
H ₂ O Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>	Foam Extinguisher(s)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Fixed H ₂ O (Deluge, Sprinklers, etc.)	<input checked="" type="checkbox"/>		Fire Water Hose(s)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Fixed Halon	<input type="checkbox"/>		Fixed CO ₂	<input type="checkbox"/>	
Other: _____	<input type="checkbox"/>	<input type="checkbox"/>			

Comments / Recommendations

COMMUNICATIONS, ETC. :					
Telephone	<input checked="" type="checkbox"/>	CCTV	<input type="checkbox"/>	PA Speaker	<input checked="" type="checkbox"/>
Fire Alarm Button	<input type="checkbox"/>	Bilge Alarm	<input type="checkbox"/>	Emergency Lighting	<input checked="" type="checkbox"/>
GA Alarm Button	<input type="checkbox"/>	General Alarm	<input type="checkbox"/>	Other: _____	<input type="checkbox"/>

Comments / Recommendations

ESCAPE ROUTES:
Door way to the passage way, forward to fwd boat deck; aft to stairway to main deck


COMPARTMENT: Client Office

FIRE:		
Ignition Sources / Fuel	Preventions (Note EX equipment)	
Electric wiring/short Class A material	Preventive maintenance and inspections Housekeeping	
Consequences	Mitigations	
Damage to equipment/compartment Possibility of injury to personnel	Firefighting capabilities Availability of medical treatment including medivac	
Risk Rank: 9	Risk Category: Low	ALARP?: Yes

EXPLOSION:		
Ignition Sources / Fuel	Preventions (Note EX equipment)	
Consequences	Mitigations	
Risk Rank:	Risk Category:	ALARP?: Yes / No

FLOOD:	
Hazards	Preventions

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		Drains.
Consequences		Mitigations
Risk Rank:	Risk Category:	ALARP?: Yes / No
OTHER:		
Hazards		Preventions
Consequences		Mitigations
Risk Rank:	Risk Category:	ALARP?:
RECOMMENDATIONS:		

COMPARTMENT NAME:	Client Store Room		
LOCATION:			
DIMENSIONS:	5.22 X 7.70	MANNING:	Intermittent
POWER / FLUID / CONTROL LINES:			
120v, base oil, rig air, seawater, fire water			
CONTROL SYSTEMS:			
HVAC / DUCTING:			
Overhead: airline controlling dampers and ventilation ducting – Fire damper #36 and #31			
PASSIVE FIRE PROTECTION:			
Deck:	A-0	Overhead:	A-0
Forward Bulkhead:	B-0	Aft Bulkhead:	A-0
Port Bulkhead:	A-0	Starboard Bulkhead:	A-0

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Comments / Recommendations

FIRE/GAS DETECTION:					
	Space	Duct		Space	Duct
Constant Manning	<input type="checkbox"/>		Hydrocarbon Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>
Flame Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>	H ₂ S Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>
Heat Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>	Other: _____	<input type="checkbox"/>	<input type="checkbox"/>
Smoke Detector(s)	<input checked="" type="checkbox"/>	<input type="checkbox"/>			

Comments / Recommendations

FIRE FIGHTING EQUIPMENT:					
	Space	Adjacent		Space	Adjacent
Dry Powder Extinguisher(s)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	CO ₂ Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>
H ₂ O Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>	Foam Extinguisher(s)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Fixed H ₂ O (Deluge, Sprinklers, etc.)	<input type="checkbox"/>		Fire Water Hose(s)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Fixed Halon	<input type="checkbox"/>		Fixed CO ₂	<input type="checkbox"/>	
Other: _____	<input type="checkbox"/>	<input type="checkbox"/>			

Comments / Recommendations
 Located in the passageway is a Dry chemical fire extinguisher and Fire Station #16

COMMUNICATIONS, ETC. :			
Telephone	<input type="checkbox"/>	CCTV	<input type="checkbox"/>
Fire Alarm Button	<input type="checkbox"/>	Bilge Alarm	<input type="checkbox"/>
GA Alarm Button	<input type="checkbox"/>	General Alarm	<input type="checkbox"/>
		PA Speaker	<input checked="" type="checkbox"/>
		Emergency Lighting	<input checked="" type="checkbox"/>
		Other:	<input type="checkbox"/>

Comments / Recommendations

ESCAPE ROUTES:
 Take stairwell, located outside client store door, to the main deck or go fwd through accommodations

COMPARTMENT: Client Store

FIRE:		
Ignition Sources / Fuel	Preventions (Note EX equipment)	
Electric wiring/shorts Class A material	Preventive maintenance and inspections Housekeeping	
Consequences	Mitigations	
Possibility of damage to equipment/compartments	Firefighting capabilities Availability of medical treatment including medivac	
Risk Rank: 9	Risk Category: Low	ALARP?: Yes

EXPLOSION:	
Ignition Sources / Fuel	Preventions (Note EX equipment)

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Consequences		Mitigations	
Risk Rank:	Risk Category:	ALARP?: Yes / No	
FLOOD:			
Hazards		Preventions	
		Drains.	
Consequences		Mitigations	
Risk Rank:	Risk Category:	ALARP?: Yes / No	
OTHER:			
Hazards		Preventions	
Consequences		Mitigations	
Risk Rank:	Risk Category:	ALARP?:	
RECOMMENDATIONS:			

COMPARTMENT NAME:	CO2 Bottle Room		
LOCATION:	Centerline aft main deck (under riser skate)		
DIMENSIONS:	3m x 12m	MANNING:	0
POWER / FLUID / CONTROL LINES:			
120v , CO2 control and discharge piping Nitrogen control piping Fire & Gas system wiring Rig air			
CONTROL SYSTEMS:			
CO2 Discharge controls Fire damper controls			

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HVAC / DUCTING:

Natural supply / Mechanical exhaust FD's 49 & 50 Fan control outside space

PASSIVE FIRE PROTECTION:

Deck:	A-60	Deckhead:	A-60
Forward Bulkhead:	A-60	Aft Bulkhead:	A-60
Port Bulkhead:	A-60	Starboard Bulkhead:	A-60

Comments / Recommendations

FIRE/GAS DETECTION:

	Space	Duct		Space	Duct
Constant Manning	<input type="checkbox"/>		Hydrocarbon Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>
Flame Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>	H ₂ S Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>
Heat Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>	Other: _____	<input type="checkbox"/>	<input type="checkbox"/>
Smoke Detector(s)	<input checked="" type="checkbox"/>	<input type="checkbox"/>			

Comments / Recommendations

ASH-172317

FIRE FIGHTING EQUIPMENT:

	Space	Adjacent		Space	Adjacent
Dry Powder Extinguisher(s)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	CO ₂ Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>
H ₂ O Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>	Foam Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>
Fixed H ₂ O (Deluge, Sprinklers, etc.)	<input type="checkbox"/>		Fire Water Hose(s)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Fixed Halon	<input type="checkbox"/>		Fixed CO ₂	<input type="checkbox"/>	
Other: _____	<input type="checkbox"/>	<input type="checkbox"/>			

Comments / Recommendations

COMMUNICATIONS, ETC. :

Telephone	<input type="checkbox"/>	CCTV	<input type="checkbox"/>	PA Speaker	<input checked="" type="checkbox"/>
Fire Alarm Button	<input type="checkbox"/>	Bilge Alarm	<input type="checkbox"/>	Emergency Lighting	<input checked="" type="checkbox"/>
GA Alarm Button	<input type="checkbox"/>	General Alarm	<input type="checkbox"/>	Other:	<input type="checkbox"/>

Comments / Recommendations

Fire alarm button outside space fwd, Telephone and sound powered telephone outside space aft.

ESCAPE ROUTES:

One door fwd to riser deck.

COMPARTMENT: CO2 Bottle Room

FIRE:

Ignition Sources / Fuel	Preventions (Note EX equipment)
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Consequences

Mitigations

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Risk Rank:	Risk Category:	ALARP?: Yes / No
EXPLOSION:		
Ignition Sources / Fuel	Preventions (Note EX equipment)	
Consequences	Mitigations	
Risk Rank:	Risk Category:	ALARP?: Yes / No
FLOOD:		
Hazards	Preventions	
	Drains.	
Consequences	Mitigations	
Risk Rank:	Risk Category:	ALARP?: Yes / No
OTHER: Pressure, asphyxiation		
Hazards	Preventions	
Stored pressure in bottles Leaking valves, piping	Preventive maintenance and inspections Careful handling of cylinders testing of atmosphere, use of buddy system	
Consequences	Mitigations	
Possibility of injury to personnel	Availability of medical treatment including medivac	
Risk Rank: 9	Risk Category: Low	ALARP?: Yes
RECOMMENDATIONS:		


COMPARTMENT NAME:	Crane and pedestal, port
LOCATION:	Port main deck, amidships

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DIMENSIONS: 3.4m x 3.3m		MANNING: Intermittent	
POWER / FLUID / CONTROL LINES:			
Power cables, hydraulic hoses, diesel fuel piping, battery cabling			
CONTROL SYSTEMS:			
PLC controller Slewing brake			
HVAC / DUCTING:			
Package A/C in cab, pedestal ventilation when engine running			
PASSIVE FIRE PROTECTION:			
Deck:	A	Deckhead:	A
Forward Bulkhead:	A	Aft Bulkhead:	A-60
Port Bulkhead:	A	Starboard Bulkhead:	A
Comments / Recommendations			
Diesel fuel tank on top of engine, have to stand on battery box while refueling crane.			
FIRE/GAS DETECTION:			
	Space	Duct	
Constant Manning	<input checked="" type="checkbox"/>		Hydrocarbon Detector(s)
Flame Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>	H ₂ S Detector(s)
Heat Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>	Other: _
Smoke Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>	
Comments / Recommendations			
Smoke from this space would be visible to men on deck.			
FIRE FIGHTING EQUIPMENT:			
	Space	Adjacent	
Dry Powder Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>	CO ₂ Extinguisher(s)
H ₂ O Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>	Foam Extinguisher(s)
Fixed H ₂ O (Deluge, Sprinklers, etc.)	<input type="checkbox"/>		Fire Water Hose(s)
Fixed Halon	<input type="checkbox"/>		Fixed CO ₂
Other:	<input type="checkbox"/>	<input type="checkbox"/>	
Comments / Recommendations			
COMMUNICATIONS, ETC. :			
Telephone	<input checked="" type="checkbox"/>	CCTV	<input checked="" type="checkbox"/>
Fire Alarm Button	<input type="checkbox"/>	Bilge Alarm	<input type="checkbox"/>
GA Alarm Button	<input type="checkbox"/>	General Alarm	<input type="checkbox"/>
		PA Speaker	<input type="checkbox"/>
		Emergency Lighting	<input checked="" type="checkbox"/>
		Other: VHF radio	<input type="checkbox"/>
Comments / Recommendations			
Operator cannot hear pages			
ESCAPE ROUTES:			


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One escape ladder on outside of crane, one escape ladder inside of crane.

COMPARTMENT: Crane and pedestal Port		
FIRE:		
Ignition Sources / Fuel	Preventions (Note EX equipment)	
Electric wiring/shorts Diesel, hydraulic/lubricating oil Flammable aerosols in pedestal	Preventive maintenance and inspections Housekeeping	
Consequences	Mitigations	
Possibility of damage to equipment/loss of use of crane Possibility of injury to personnel	Firefighting capabilities Availability of medical treatment including medivac Availability/use of other crane Ability to effect repairs	
Risk Rank: 9	Risk Category: Low	ALARP?: Yes
EXPLOSION:		
Ignition Sources / Fuel	Preventions (Note EX equipment)	
Consequences	Mitigations	
Risk Rank:	Risk Category:	ALARP?: Yes / No
FLOOD:		
Hazards	Preventions	
	Drains.	
Consequences	Mitigations	
Risk Rank:	Risk Category:	ALARP?: Yes / No
OTHER:		
Hazards	Preventions	
Dropped/fallen object (major hazard tables) Other considerations (systems tables)		
Consequences	Mitigations	
Risk Rank:	Risk Category:	ALARP?: Yes / No


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RECOMMENDATIONS: Consider the installation of an approved flammables storage locker for the port crane pedestal.
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COMPARTMENT NAME:		Deck office/Stbd Electrical Space	
LOCATION:		2 nd Deck Accommodations Stbd Side	
DIMENSIONS:		7m X 5m	MANNING:
POWER / FLUID / CONTROL LINES:			
120V Outlet and Lighting Cables		Network Cabling	
208/120V Power Panel (236003)		#9 & #10 Welding Outlets (WOJB-3-1)	
Panel RP-008 (248008)		Fire & Gas Junction Box (FGJB02)	
480V AC Power Dist. Panel (236201)		ROV 480V Power Panel #1 (P-ROVPP1)	
Doppler Radar Power Supply (RD-351720)			
CONTROL SYSTEMS:			
Stbd Fwd 120/280V Dist. Panel (PM#248002)			
VSAT Equipment Rack (VSAT-003)			
HiTec Drilling Control Network Panel (I-156-17)			
HVAC / DUCTING:			
HVAC Ventilation Ducts			
PASSIVE FIRE PROTECTION:			
Deck:	A-0	Deckhead:	A-60
Forward Bulkhead:	A-60	Aft Bulkhead:	A-60
Port Bulkhead:	A-60	Starboard Bulkhead:	A-60
Comments / Recommendations			
FIRE/GAS DETECTION:			
	Space	Duct	
Constant Manning	<input type="checkbox"/>		Hydrocarbon Detector(s)
Flame Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>	H ₂ S Detector(s)
Heat Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>	Other: _____
Smoke Detector(s)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Comments / Recommendations			
Smoke Detector #ASH-172602			
FIRE FIGHTING EQUIPMENT:			
	Space	Adjacent	
Dry Powder Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>	CO ₂ Extinguisher(s)
H ₂ O Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>	Foam Extinguisher(s)
Fixed H ₂ O (Deluge, Sprinklers, etc.)	<input type="checkbox"/>		Fire Water Hose(s)
Fixed Halon	<input type="checkbox"/>		Fixed CO ₂
Other: _____	<input type="checkbox"/>	<input type="checkbox"/>	

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Comments / Recommendations

COMMUNICATIONS, ETC. :			
Telephone	<input checked="" type="checkbox"/>	CCTV	<input type="checkbox"/>
Fire Alarm Button	<input type="checkbox"/>	Bilge Alarm	<input type="checkbox"/>
GA Alarm Button	<input type="checkbox"/>	General Alarm	<input checked="" type="checkbox"/>
		PA Speaker	<input checked="" type="checkbox"/>
		Emergency Lighting	<input checked="" type="checkbox"/>
		Other:	<input type="checkbox"/>

Comments / Recommendations
Telephone #323

ESCAPE ROUTES:
Exit port through only door into Stbd Transformer Room, then out WTD to Fwd Lifeboat Deck


COMPARTMENT: Deck Office/Stbd Electrical Space

FIRE:		
Ignition Sources / Fuel	Preventions (Note EX equipment)	
Electrical wiring/panels/shorts Class A materials in office	Preventive maintenance and inspections Housekeeping	
Consequences	Mitigations	
Possibility of damage to equipment/compartments possibility of injury to personnel	Firefighting capabilities Availability of medical treatment including medivac	
Risk Rank: 9	Risk Category: Low	ALARP?: Yes

EXPLOSION:		
Ignition Sources / Fuel	Preventions (Note EX equipment)	
Consequences	Mitigations	
Risk Rank:	Risk Category:	ALARP?: Yes / No

FLOOD:		
Hazards	Preventions	
	Drains.	
Consequences	Mitigations	
Risk Rank:	Risk Category:	ALARP?: Yes / No

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OTHER: Electrical shock (Electrical space)		
Hazards		Preventions
Contact with live energy sources		Preventive maintenance and inspections PPE, PTW, energy isolation
Consequences		Mitigations
Possibility of injury to personnel Possibility of fatality		Availability of medical treatment including medivac
Risk Rank: 15	Risk Category: Medium	ALARP?: Yes
RECOMMENDATIONS:		

COMPARTMENT NAME: Derrick																										
LOCATION: Above main deck																										
DIMENSIONS: 242ft x 48ft x 48ft base	MANNING: As required																									
POWER / FLUID / CONTROL LINES:																										
Hydraulic lines running up the stbd fwd side of the derrick, also running to the stbd aft. Feeds the fwd and aft PRS Electrical tray at the 100ft level stbd fwd																										
CONTROL SYSTEMS:																										
35ft level fwd derrick controls for port fingerboard 70ft level fwd derrick controls for port collar and HWDP fingers 100ft level fwd and aft derrick controls for port csg, DP finger board 140ft level aft control monitor, hydraulic and air feeder to fwd and aft PRS																										
HVAC / DUCTING:																										
Open air																										
PASSIVE FIRE PROTECTION:																										
Deck: Forward Bulkhead: Port Bulkhead:	Deckhead: Aft Bulkhead: Starboard Bulkhead:																									
Comments / Recommendations Detection system in derrick																										
FIRE/GAS DETECTION:																										
Constant Manning Flame Detector(s) Heat Detector(s) Smoke Detector(s)	<table border="1"> <thead> <tr> <th>Space</th> <th>Duct</th> <th>Hydrocarbon Detector(s) H₂S Detector(s) Other: _____</th> <th>Space</th> <th>Duct</th> </tr> </thead> <tbody> <tr> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> </tbody> </table>	Space	Duct	Hydrocarbon Detector(s) H ₂ S Detector(s) Other: _____	Space	Duct	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
Space	Duct	Hydrocarbon Detector(s) H ₂ S Detector(s) Other: _____	Space	Duct																						
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>																						
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>																						
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>																						
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>																						

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Comments / Recommendations

FIRE FIGHTING EQUIPMENT:

	Space	Adjacent		Space	Adjacent
Dry Powder Extinguisher(s)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	CO ₂ Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>
H ₂ O Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>	Foam Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>
Fixed H ₂ O (Deluge, Sprinklers, etc.)	<input type="checkbox"/>		Fire Water Hose(s)	<input type="checkbox"/>	<input type="checkbox"/>
Fixed Halon	<input type="checkbox"/>		Fixed CO ₂	<input type="checkbox"/>	
Other:	<input type="checkbox"/>	<input type="checkbox"/>			

Comments / Recommendations

Dry powder located on rig floor at the bottom of derrick near the port fwd wall. Derrick support structure protected by moon pool deluge and shaker house deluge.

COMMUNICATIONS, ETC. :

Telephone	<input checked="" type="checkbox"/>	CCTV	<input checked="" type="checkbox"/>	PA Speaker	<input checked="" type="checkbox"/>
Fire Alarm Button	<input type="checkbox"/>	Bilge Alarm	<input type="checkbox"/>	Emergency Lighting	<input type="checkbox"/>
GA Alarm Button	<input type="checkbox"/>	General Alarm	<input type="checkbox"/>	Other:	<input type="checkbox"/>

Comments / Recommendations

Phone: Driller's talk back located at fwd derrick, crown level. Driller's talk back port fwd 100ft level

ESCAPE ROUTES:

Derrick ladders only

COMPARTMENT: Derrick (equipment)

FIRE:

Ignition Sources / Fuel	Preventions (Note EX equipment)
Electrical wiring/shorts (top drive)	Preventive maintenance and inspections
Consequences	Mitigations
Damage to equipment	Firefighting capabilities, ESD's Ability to effect repairs
Risk Rank: 13	Risk Category: Medium
	ALARP?: Yes


EXPLOSION:

Ignition Sources / Fuel	Preventions (Note EX equipment)
Electrical wiring/shorts (top drive)	Preventive maintenance and inspections
Gas from the well	Well control procedures - gas handling
Metal to metal contact (sparks)	
Consequences	Mitigations
Damage to equipment	Firefighting capabilities, ESD's Ability to effect repairs
Risk Rank: 15	Risk Category: Medium
	ALARP?: Yes

FLOOD:

Hazards	Preventions
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		Drains.
Consequences		Mitigations
Risk Rank:	Risk Category:	ALARP?: Yes / No
OTHER:		
Hazards		Preventions
Dropped/fallen objects (major hazards tables)		
Consequences		Mitigations
Risk Rank:	Risk Category:	ALARP?: Yes / No
RECOMMENDATIONS:		

COMPARTMENT NAME: Draw-works House Top	
LOCATION: On top of draw work	
DIMENSIONS: 23m X 10m	MANNING: Manned as necessary
POWER / FLUID / CONTROL LINES:	
120v, hydraulic lines for Varco manifold, high pressure mud, rig air.	
CONTROL SYSTEMS:	
Manual controls for draw work. Motor drive rooms located fwd and aft on top of draw works house stbd side. Controls for Palfinger basket, TDS parking system	
HVAC / DUCTING:	
Open air	
PASSIVE FIRE PROTECTION:	
Deck: B-30 Forward Bulkhead: Port Bulkhead:	Deckhead: Aft Bulkhead: Starboard Bulkhead:

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Comments / Recommendations

Hatch square located on stbd side midships of house top

FIRE/GAS DETECTION:

	Space	Duct		Space	Duct
Constant Manning	<input type="checkbox"/>		Hydrocarbon Detector(s)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Flame Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>	H ₂ S Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>
Heat Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>	Other: _____	<input type="checkbox"/>	<input type="checkbox"/>
Smoke Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>			

Comments / Recommendations
FIRE FIGHTING EQUIPMENT:

	Space	Adjacent		Space	Adjacent
Dry Powder Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>	CO ₂ Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>
H ₂ O Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>	Foam Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>
Fixed H ₂ O (Deluge, Sprinklers, etc.)	<input type="checkbox"/>		Fire Water Hose(s)	<input type="checkbox"/>	<input type="checkbox"/>
Fixed Halon	<input type="checkbox"/>		Fixed CO ₂	<input type="checkbox"/>	
Other: _____	<input type="checkbox"/>	<input type="checkbox"/>			

Comments / Recommendations

CO₂ de-gassing vent

COMMUNICATIONS, ETC. :

Telephone	<input checked="" type="checkbox"/>	CCTV	<input type="checkbox"/>	PA Speaker	<input checked="" type="checkbox"/>
Fire Alarm Button	<input type="checkbox"/>	Bilge Alarm	<input type="checkbox"/>	Emergency Lighting	<input checked="" type="checkbox"/>
GA Alarm Button	<input checked="" type="checkbox"/>	General Alarm	<input checked="" type="checkbox"/>	Other: _____	<input type="checkbox"/>

Comments / Recommendations

Telephone behind driller's station

ESCAPE ROUTES:

Take the stairs stbd fwd house top

COMPARTMENT: Drawworks House Top
FIRE:

Ignition Sources / Fuel		Preventions (Note EX equipment)	
Electrical wiring shorts		Preventive maintenance and inspections	
Consequences		Mitigations	
Possibility of damage to equipment		Firefighting capabilities	
Possibility of injury to personnel		Availability of medical treatment including medivac	
Risk Rank: 9	Risk Category: Low	ALARP?: Yes	

EXPLOSION:

Ignition Sources / Fuel		Preventions (Note EX equipment)	
Electrical wiring shorts		Preventive maintenance and inspections	
Gas from the well		Eex rated equipment	
		Well control procedures - gas handling	

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Consequences		Mitigations	
Possibility of damage to equipment Possibility of injury to personnel		Firefighting capabilities Availability of medical treatment including medivac	
Risk Rank: 9	Risk Category: Low	ALARP?: Yes	
FLOOD:			
Hazards		Preventions	
		Drains.	
Consequences		Mitigations	
Risk Rank:	Risk Category:	ALARP?: Yes / No	
OTHER: Pressure			
Hazards		Preventions	
Contact with live energy sources Rupture/leak in piping		PPE, PTW, energy isolation	
Consequences		Mitigations	
Possibility of injury to personnel Possibility of fatality		Availability of medical treatment including medivac	
Risk Rank: 6	Risk Category: Low	ALARP?: Yes	
RECOMMENDATIONS:			

COMPARTMENT NAME:	Driller's Work Station		
LOCATION:	Stbd Aft rig floor		
DIMENSIONS: 25 X 18	MANNING:	2 usually	
POWER / FLUID / CONTROL LINES:			
120v, air lines.			
CONTROL SYSTEMS:			
Cameron controls for BOP, Cyber chair and controls for rig floor, weld machine shut down located on stbd bulkhead above ESD lights, fire and gas matrix, MRU panel			

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**MAJOR ACCIDENT HAZARD
RISK ASSESSMENT
DEEPWATER HORIZON**

APPENDIX III

HVAC / DUCTING:

Purge air system

PASSIVE FIRE PROTECTION:

Deck:

Forward Bulkhead:

Port Bulkhead:

Deckhead:

Aft Bulkhead:

Starboard

Bulkhead:

Comments / Recommendations

FIRE/GAS DETECTION:

	Space	Duct		Space	Duct
Constant Manning	<input checked="" type="checkbox"/>		Hydrocarbon Detector(s)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Flame Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>	H ₂ S Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>
Heat Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>	Other: <u>Combustible</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Smoke Detector(s)	<input checked="" type="checkbox"/>	<input type="checkbox"/>			

Comments / Recommendations

The simrad SVC can access the fire and gas system to monitor rig emergencies

FIRE FIGHTING EQUIPMENT:

	Space	Adjacent		Space	Adjacent
Dry Powder Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>	CO ₂ Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>
H ₂ O Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>	Foam Extinguisher(s)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Fixed H ₂ O (Deluge, Sprinklers, etc.)	<input type="checkbox"/>		Fire Water Hose(s)	<input type="checkbox"/>	<input type="checkbox"/>
Fixed Halon	<input type="checkbox"/>		Fixed CO ₂	<input type="checkbox"/>	
Other: _____	<input type="checkbox"/>	<input type="checkbox"/>			

Comments / Recommendations

Co2 bottle located on port bulkhead in DWS

COMMUNICATIONS, ETC. :

Telephone	<input checked="" type="checkbox"/>	CCTV	<input checked="" type="checkbox"/>	PA Speaker	<input checked="" type="checkbox"/>
Fire Alarm Button	<input type="checkbox"/>	Bilge Alarm	<input checked="" type="checkbox"/>	Emergency Lighting	<input checked="" type="checkbox"/>
GA Alarm Button	<input type="checkbox"/>	General Alarm	<input checked="" type="checkbox"/>	Other:	<input type="checkbox"/>

Comments / Recommendations

There is a gas fire pollution pan alarm, a PA system, and DP alarm lights located near the Cameron controls

ESCAPE ROUTES:


Exit through the front door onto the rig floor using the aft stairwell or the fwd stairwell for escape, or exit through the back door going through the heavy tool store room, through the fwd hatch.

COMPARTMENT: Driller's Work Station

FIRE:

Ignition Sources / Fuel	Preventions (<i>Note EX equipment</i>)
Electric wiring/shorts Limited class A materials	Preventive maintenance and inspections Eex equipment Housekeeping
Consequences	Mitigations
Possibility of damage to equipment/compartament Shut down of drilling Possibility of injury to personnel	Firefighting capabilities Availability of medical treatment including medivac

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Risk Rank: 15	Risk Category: Medium	ALARP?: Yes
EXPLOSION:		
Ignition Sources / Fuel	Preventions (Note EX equipment)	
Electric wiring/shorts Gas from the well	Preventive maintenance and inspections Eex equipment Purged space	
Consequences	Mitigations	
Possibility of damage to equipment/compartment Shut down of drilling Possibility of injury to personnel	Firefighting capabilities Availability of medical treatment including medivac	
Risk Rank: 15	Risk Category: Medium	ALARP?: Yes
FLOOD:		
Hazards	Preventions	
	Drains.	
Consequences	Mitigations	
Risk Rank:	Risk Category:	ALARP?: Yes / No
OTHER:		
Hazards	Preventions	
Dropped/fallen objects (major hazards tables)		
Consequences	Mitigations	
Risk Rank:	Risk Category:	ALARP?: Yes / No
RECOMMENDATIONS:		

COMPARTMENT NAME:	Driller's Store Room
LOCATION:	Stbd side Rig Floor

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DEEPWATER HORIZON

APPENDIX III

DIMENSIONS: 11m x 12m		MANNING: Intermittent			
POWER / FLUID / CONTROL LINES: 120v, 480v, rig air, hydraulic lines					
CONTROL SYSTEMS: Main control system unit, cathead A&B, mousehole spider air Radio comms box, PA/GA, Schlumberger junction box					
HVAC / DUCTING: 1 duct to stbd, open to port					
PASSIVE FIRE PROTECTION: Deck: Forward Bulkhead: Port Bulkhead: Deckhead: Aft Bulkhead: Starboard Bulkhead:					
Comments / Recommendations					
FIRE/GAS DETECTION:					
Constant Manning	Space <input type="checkbox"/>	Duct <input type="checkbox"/>	Hydrocarbon Detector(s)	Space <input type="checkbox"/>	Duct <input type="checkbox"/>
Flame Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>	H ₂ S Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>
Heat Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>	Other: _____	<input type="checkbox"/>	<input type="checkbox"/>
Smoke Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>			
Comments / Recommendations					
FIRE FIGHTING EQUIPMENT:					
Dry Powder Extinguisher(s)	Space <input type="checkbox"/>	Adjacent <input type="checkbox"/>	CO ₂ Extinguisher(s)	Space <input type="checkbox"/>	Adjacent <input checked="" type="checkbox"/>
H ₂ O Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>	Foam Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>
Fixed H ₂ O (Deluge, Sprinklers, etc.)	<input type="checkbox"/>		Fire Water Hose(s)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Fixed Halon	<input type="checkbox"/>		Fixed CO ₂	<input type="checkbox"/>	
Other: _____	<input type="checkbox"/>	<input type="checkbox"/>			
Comments / Recommendations					
COMMUNICATIONS, ETC. :					
Telephone <input checked="" type="checkbox"/>	CCTV <input type="checkbox"/>	PA Speaker <input checked="" type="checkbox"/>			
Fire Alarm Button <input type="checkbox"/>	Bilge Alarm <input type="checkbox"/>	Emergency Lighting <input checked="" type="checkbox"/>			
GA Alarm Button <input type="checkbox"/>	General Alarm <input type="checkbox"/>	Other: _____ <input type="checkbox"/>			
Comments / Recommendations					
ESCAPE ROUTES:					

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Forward door to stairs to main deck

COMPARTMENT: Driller's Store Room			
FIRE:			
Ignition Sources / Fuel		Preventions (Note EX equipment)	
Electrical wiring/shorts Class A materials Flammable aerosols		Preventive maintenance and inspections Eex equipment Housekeeping	
Consequences		Mitigations	
Possibility of damage to equipment/compartment Possibility of injury to personnel		Firefighting capabilities Availability of medical treatment	
Risk Rank: 9	Risk Category: Low	ALARP?: Yes	
EXPLOSION:			
Ignition Sources / Fuel		Preventions (Note EX equipment)	
Electrical wiring/shorts Gas from well Flammable aerosols		Preventive maintenance and inspections Eex equipment Well control procedures - gas handling	
Consequences		Mitigations	
Possibility of damage to equipment/compartment Possibility of injury to personnel		Firefighting capabilities Availability of medical treatment	
Risk Rank: 9	Risk Category: Low	ALARP?: Yes	
FLOOD:			
Hazards		Preventions	
		Drains.	
Consequences		Mitigations	
Risk Rank:	Risk Category:	ALARP?: Yes / No	
OTHER:			
Hazards		Preventions	
Contact with live energy sources		PPE, PTW, energy isolation	
Consequences		Mitigations	
Possibility of injury to personnel Possibility of fatality		Availability of medical treatment including medivac	
Risk Rank: 15	Risk Category: Medium	ALARP?: Yes	
RECOMMENDATIONS:			

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APPENDIX III

Consider the installation of an approved flammables storage locker for the Driller's Store Room.

COMPARTMENT NAME:		Driller's Store Top			
LOCATION:		Above drill store, stbd side, 49.4m above baseline			
DIMENSIONS:		Approx. 11m x 12m		MANNING: As required	
POWER / FLUID / CONTROL LINES:					
120 v, 480v. for wireline logging unit. Rig air, pot water, diesel, chemical hoses					
CONTROL SYSTEMS:					
No controls for rig systems. Wireline logging unit present, controls inside.					
HVAC / DUCTING:					
The space is located outside, therefore we must be conscious of our heading and wind relation if a fire should arise.					
PASSIVE FIRE PROTECTION:					
Deck: A-0		Deckhead:			
Forward Bulkhead:		Aft Bulkhead:			
Port Bulkhead:		Starboard Bulkhead:			
Comments / Recommendations					
FIRE/GAS DETECTION:					
	Space	Duct		Space	Duct
Constant Manning	<input type="checkbox"/>		Hydrocarbon Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>
Flame Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>	H ₂ S Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>
Heat Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>	Other: _____	<input type="checkbox"/>	<input type="checkbox"/>
Smoke Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>			
Comments / Recommendations					
FIRE FIGHTING EQUIPMENT:					
	Space	Adjacent		Space	Adjacent
Dry Powder Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>	CO ₂ Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>
H ₂ O Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>	Foam Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>
Fixed H ₂ O (Deluge, Sprinklers, etc.)	<input type="checkbox"/>		Fire Water Hose(s)	<input type="checkbox"/>	<input type="checkbox"/>
Fixed Halon	<input type="checkbox"/>		Fixed CO ₂	<input type="checkbox"/>	
Other: _____	<input type="checkbox"/>	<input type="checkbox"/>			
Comments / Recommendations					
Recommend adding a dry powder extinguisher to space.					

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COMMUNICATIONS, ETC. :			
Telephone	<input type="checkbox"/>	CCTV	<input type="checkbox"/>
Fire Alarm Button	<input type="checkbox"/>	Bilge Alarm	<input type="checkbox"/>
GA Alarm Button	<input type="checkbox"/>	General Alarm	<input type="checkbox"/>
		PA Speaker	<input type="checkbox"/>
		Emergency Lighting	<input type="checkbox"/>
		Other:	<input type="checkbox"/>
Comments / Recommendations			
Schlumberger unit is fitted with smoke detector, gas alarm, purge air, dry chem ext., PA and telephone			
Sperry Sun unit has purge air, combustible gas detector, dry chem ext, PA and telephone			
ESCAPE ROUTES:			
Aft stairs to stbd main deck, stbd side walkway to crane pedestal and down vertical ladder.			


COMPARTMENT: Driller's Store Top / including 3rd party units		
FIRE:		
Ignition Sources / Fuel	Preventions (Note EX equipment)	
Electric wiring/shorts	Preventive maintenance and inspections	
Class A materials	Eex equipment	
Consequences	Mitigations	
Damage to equipment/3rd party units	Firefighting capabilities	
	Availability of medical treatment including medivac	
Risk Rank: 9	Risk Category: Low	ALARP?: Yes

EXPLOSION:		
Ignition Sources / Fuel	Preventions (Note EX equipment)	
Electric wiring/shorts	Preventive maintenance and inspections	
Gas from well	Eex equipment	
Calibration gas cylinders	Well control procedures - gas handling	
Consequences	Mitigations	
Damage to equipment/3rd party units	Firefighting capabilities	
	Availability of medical treatment including medivac	
Risk Rank: 9	Risk Category: Low	ALARP?: Yes

FLOOD:		
Hazards	Preventions	
Consequences	Mitigations	
Risk Rank:	Risk Category:	ALARP?: Yes / No


OTHER: Pressure		
Hazards	Preventions	

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Contact with live energy sources Stored pressure/calibration gas cylinders /3rd party		PPE, PTW, energy isolation Preventive maintenance and inspections Careful handling of cylinders
Consequences Possibility of injury to personnel		Mitigations Availability of medical treatment including medivac
Risk Rank: 6	Risk Category: Low	ALARP?: Yes
RECOMMENDATIONS:		

COMPARTMENT NAME: Dry Store																												
LOCATION: 2 nd deck, stbd accommodation, outboard of galley																												
DIMENSIONS: Approx. 5m x 5m	MANNING: 0-2																											
POWER / FLUID / CONTROL LINES: 120v, 480v, rig air, refrigerant																												
CONTROL SYSTEMS: Switchboard for reefer plant electrical panel for galley/laundry																												
HVAC / DUCTING: Fire zone 10																												
PASSIVE FIRE PROTECTION:																												
Deck: A-0 Forward Bulkhead: A-0 Port Bulkhead: A-0	Deckhead: A-0 Aft Bulkhead: A-0 Starboard Bulkhead: A-0																											
Comments / Recommendations																												
FIRE/GAS DETECTION:																												
<table border="1"> <tr> <th></th> <th>Space</th> <th>Duct</th> </tr> <tr> <td>Constant Manning</td> <td><input type="checkbox"/></td> <td></td> </tr> <tr> <td>Flame Detector(s)</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>Heat Detector(s)</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>Smoke Detector(s)</td> <td><input checked="" type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> </table>		Space	Duct	Constant Manning	<input type="checkbox"/>		Flame Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>	Heat Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>	Smoke Detector(s)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<table border="1"> <tr> <th></th> <th>Space</th> <th>Duct</th> </tr> <tr> <td>Hydrocarbon Detector(s)</td> <td><input type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> </tr> <tr> <td>H₂S Detector(s)</td> <td><input type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> </tr> <tr> <td>Other: _____</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> </table>		Space	Duct	Hydrocarbon Detector(s)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	H ₂ S Detector(s)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Other: _____	<input type="checkbox"/>	<input type="checkbox"/>
	Space	Duct																										
Constant Manning	<input type="checkbox"/>																											
Flame Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>																										
Heat Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>																										
Smoke Detector(s)	<input checked="" type="checkbox"/>	<input type="checkbox"/>																										
	Space	Duct																										
Hydrocarbon Detector(s)	<input type="checkbox"/>	<input checked="" type="checkbox"/>																										
H ₂ S Detector(s)	<input type="checkbox"/>	<input checked="" type="checkbox"/>																										
Other: _____	<input type="checkbox"/>	<input type="checkbox"/>																										
Comments / Recommendations																												
FIRE FIGHTING EQUIPMENT:																												
<table border="1"> <tr> <th></th> <th>Space</th> <th>Adjacent</th> </tr> <tr> <td>Dry Powder Extinguisher(s)</td> <td><input checked="" type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> </table>		Space	Adjacent	Dry Powder Extinguisher(s)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<table border="1"> <tr> <th></th> <th>Space</th> <th>Adjacent</th> </tr> <tr> <td>CO₂ Extinguisher(s)</td> <td><input type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> </tr> </table>		Space	Adjacent	CO ₂ Extinguisher(s)	<input type="checkbox"/>	<input checked="" type="checkbox"/>															
	Space	Adjacent																										
Dry Powder Extinguisher(s)	<input checked="" type="checkbox"/>	<input type="checkbox"/>																										
	Space	Adjacent																										
CO ₂ Extinguisher(s)	<input type="checkbox"/>	<input checked="" type="checkbox"/>																										
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H ₂ O Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>	Foam Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>
Fixed H ₂ O (Deluge, Sprinklers, etc.)	<input checked="" type="checkbox"/>		Fire Water Hose(s)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Fixed Halon	<input type="checkbox"/>		Fixed CO ₂	<input type="checkbox"/>	
Other:	<input type="checkbox"/>	<input type="checkbox"/>			

Comments / Recommendations

COMMUNICATIONS, ETC. :

Telephone	<input type="checkbox"/>	CCTV	<input type="checkbox"/>	PA Speaker	<input checked="" type="checkbox"/>
Fire Alarm Button	<input type="checkbox"/>	Bilge Alarm	<input type="checkbox"/>	Emergency Lighting	<input checked="" type="checkbox"/>
GA Alarm Button	<input type="checkbox"/>	General Alarm	<input checked="" type="checkbox"/>	Other:	<input type="checkbox"/>

Comments / Recommendations

ESCAPE ROUTES:

Out stbd door then forward through door to lifeboat deck.

COMPARTMENT: Dry Store

FIRE:

Ignition Sources / Fuel

Electrical wiring/shorts
Class a materials

Preventions (Note EX equipment)

Preventive maintenance and inspections
Housekeeping

Consequences

Damage to equipment/compartment

Mitigations

Firefighting capabilities
Availability of medical treatment including medivac

Risk Rank: 9

Risk Category: Low

ALARP?: Yes

EXPLOSION:

Ignition Sources / Fuel

Preventions (Note EX equipment)

Consequences

Mitigations

Risk Rank:

Risk Category:

ALARP?: Yes / No

FLOOD:

Hazards

Preventions

Drains.

Consequences

Mitigations

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Risk Rank:	Risk Category:	ALARP?: Yes / No	
OTHER:			
Hazards		Preventions	
Consequences		Mitigations	
Risk Rank:	Risk Category:	ALARP?:	
RECOMMENDATIONS:			

COMPARTMENT NAME: Electrical Equipment Room			
LOCATION: Port Fwd second deck			
DIMENSIONS: Approx. 18x35x10	MANNING: As required		
POWER / FLUID / CONTROL LINES: 480v distribution, 120v, 208v Control air Seawater line to foam pump			
CONTROL SYSTEMS: UPS for PA/GA Telephone Rack Nav & Comm panels			
HVAC / DUCTING: High ventilation for cooling of electronics Forced supply and exhaust			
PASSIVE FIRE PROTECTION:			
Deck: A-0 Forward Bulkhead: A-0 Port Bulkhead: A-0	Deckhead: A-60 Aft Bulkhead: B-30 Starboard Bulkhead: A-0		
Comments / Recommendations			
FIRE/GAS DETECTION:			
Constant Manning	Space <input type="checkbox"/> Duct <input type="checkbox"/>	Hydrocarbon Detector(s)	Space <input type="checkbox"/> Duct <input type="checkbox"/>
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Flame Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>	H ₂ S Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>
Heat Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>	Other: _____	<input type="checkbox"/>	<input type="checkbox"/>
Smoke Detector(s)	<input checked="" type="checkbox"/>	<input type="checkbox"/>			

Comments / Recommendations

FIRE FIGHTING EQUIPMENT:

	Space	Adjacent		Space	Adjacent
Dry Powder Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>	CO ₂ Extinguisher(s)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
H ₂ O Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>	Foam Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>
Fixed H ₂ O (Deluge, Sprinklers, etc.)	<input type="checkbox"/>		Fire Water Hose(s)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Fixed Halon	<input type="checkbox"/>		Fixed CO ₂	<input type="checkbox"/>	
Other: Fire Axe	<input type="checkbox"/>	<input checked="" type="checkbox"/>			

Comments / Recommendations

COMMUNICATIONS, ETC. :

Telephone	<input checked="" type="checkbox"/>	CCTV	<input type="checkbox"/>	PA Speaker	<input checked="" type="checkbox"/>
Fire Alarm Button	<input type="checkbox"/>	Bilge Alarm	<input type="checkbox"/>	Emergency Lighting	<input checked="" type="checkbox"/>
GA Alarm Button	<input type="checkbox"/>	General Alarm	<input type="checkbox"/>	Other: Toxic/Combustible gas alarm buttons.	<input type="checkbox"/>

Comments / Recommendations

Fire alarm button outside space

ESCAPE ROUTES:

2 doors on aft bulkhead

COMPARTMENT: Electrical Equipment Room


FIRE:

Ignition Sources / Fuel		Preventions (Note EX equipment)	
Electrical wiring/shorts		Preventive maintenance and inspections	
Consequences		Mitigations	
Possibility of damage to equipment/compartment		Firefighting capabilities Availability of medical treatment including medivac	
Risk Rank: 9	Risk Category: Low	ALARP?: Yes	

EXPLOSION:


Ignition Sources / Fuel		Preventions (Note EX equipment)	
Consequences		Mitigations	

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Risk Rank:	Risk Category:	ALARP?: Yes / No
FLOOD:		
Hazards	Preventions	
	Drains.	
Consequences	Mitigations	
Risk Rank:	Risk Category:	ALARP?: Yes / No
OTHER: Electrical shock		
Hazards	Preventions	
Contact with live energy sources	Preventive maintenance and inspections PPE, PTW, energy isolation	
Consequences	Mitigations	
Possibility of injury to personnel Possibility of fatality	Availability of medical treatment including medivac availability of high voltage PPE	
Risk Rank: 15	Risk Category: Medium	ALARP?: Yes
RECOMMENDATIONS:		
Consider providing high voltage PPE for this space. Also consider the placement of a sign detailing the steps to take in an electrical shock situation.		

COMPARTMENT NAME:	Electrician's shop		
LOCATION:	3 rd deck, portside, amidships		
DIMENSIONS:	Approx. 20x22x11 feet	MANNING:	As required
POWER / FLUID / CONTROL LINES:			
120v, 208v, 480v, 12vdc, 24vdc, 240v Compressed air lines Pot water, drill water, fire water			
CONTROL SYSTEMS:			
UPS 135A Drill Equipment Control cabinet 101B001& 101B450 Comms & Power distribution panel A Panel LP-053 (268053) Test panel for 75 kW motor (248224)			
HVAC / DUCTING:			
Air conditioning package #9, Controls for supply fan #8 & exhaust fan #2 located in passageway.			
PASSIVE FIRE PROTECTION:			
Deck:	A-0	Deckhead:	A-0
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Forward Bulkhead: A-0	Aft Bulkhead: A-0
Port Bulkhead: A-0	Starboard Bulkhead: A-0

Comments / Recommendations Aft bulkhead of space is the forward bulkhead of the fuel oil settling and service tanks.
--

FIRE/GAS DETECTION:					
	Space	Duct		Space	Duct
Constant Manning	<input type="checkbox"/>		Hydrocarbon Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>
Flame Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>	H ₂ S Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>
Heat Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>	Other: _____	<input type="checkbox"/>	<input type="checkbox"/>
Smoke Detector(s)	<input checked="" type="checkbox"/>	<input type="checkbox"/>			

Comments / Recommendations ASH 172901

FIRE FIGHTING EQUIPMENT:					
	Space	Adjacent		Space	Adjacent
Dry Powder Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>	CO ₂ Extinguisher(s)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
H ₂ O Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>	Foam Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>
Fixed H ₂ O (Deluge, Sprinklers, etc.)	<input type="checkbox"/>		Fire Water Hose(s)	<input type="checkbox"/>	<input type="checkbox"/>
Fixed Halon	<input type="checkbox"/>		Fixed CO ₂	<input type="checkbox"/>	
Other: _____	<input type="checkbox"/>	<input type="checkbox"/>			

Comments / Recommendations Fire main isolation valve in space

COMMUNICATIONS, ETC. :			
Telephone	<input checked="" type="checkbox"/>	CCTV	<input type="checkbox"/>
Fire Alarm Button	<input type="checkbox"/>	Bilge Alarm	<input type="checkbox"/>
GA Alarm Button	<input type="checkbox"/>	General Alarm	<input checked="" type="checkbox"/>
		PA Speaker	<input checked="" type="checkbox"/>
		Emergency Lighting	<input checked="" type="checkbox"/>
		Other: _____	<input type="checkbox"/>

Comments / Recommendations Telephone #380 Fire alarm button XS172922 in mud pump room #1 and XS172844 in passageway.

ESCAPE ROUTES: Exit to portside passageway of 3 rd deck. Up ladder to Main Deck
--

COMPARTMENT: Electrician's Shop
--

FIRE:	
Ignition Sources / Fuel Electrical wiring/shorts Flammable aerosols Class A materials	Preventions (Note EX equipment) Preventive maintenance and inspections Housekeeping
Consequences Possibility of damage to equipment/compartment Possibility of injury to personnel	Mitigations Firefighting capabilities Availability of medical treatment
Risk Rank: 9	Risk Category: Low ALARP?: Yes

EXPLOSION:	
Ignition Sources / Fuel	Preventions (Note EX equipment)

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Consequences		Mitigations	
Risk Rank:	Risk Category:	ALARP?: Yes / No	
FLOOD:			
Hazards		Preventions	
		Drains.	
Consequences		Mitigations	
Risk Rank:	Risk Category:	ALARP?: Yes / No	
OTHER: Electricla shock			
Hazards		Preventions	
Contact with live energy sources		PTW, energy isolation, PPE Preventive maintenance and inspections	
Consequences		Mitigations	
Possibility of injury to personnel Possibility of fatality		Availability of medical treatment including medivac	
Risk Rank: 15	Risk Category: Medium	ALARP?: Yes	
RECOMMENDATIONS:			
Consider the installation of an approved flammables storage locker for this space.			

COMPARTMENT NAME:	Engine Control Room		
LOCATION:	2 nd Deck, Centerline Aft		
DIMENSIONS:	Approx. 18x27x8	MANNING:	1
POWER / FLUID / CONTROL LINES:			
AC Power service LAN network cables Fire Dampers (FD-80, FD-82)			

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CONTROL SYSTEMS:					
Simrad SVC (SVC-04 & SVC-05) Backup DP Control (SDP-04) Backup Thruster Control (STC-02) Backup DP Computer (DPC-12)			Fire & Gas Emergency Shutdown (ESD) panel Redundant GMDSS station MRU #1 DGPS #1 Decoder and Controller		
HVAC / DUCTING:					
Recirculation and make-up air					
PASSIVE FIRE PROTECTION:					
Deck: A-60		Deckhead: A-60			
Forward Bulkhead: A-60		Aft Bulkhead: A-60			
Port Bulkhead: A-60		Starboard Bulkhead: A-60			
Comments / Recommendations					
FIRE/GAS DETECTION:					
	Space	Duct		Space	Duct
Constant Manning	<input checked="" type="checkbox"/>		Hydrocarbon Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>
Flame Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>	H ₂ S Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>
Heat Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>	Other: _____	<input type="checkbox"/>	<input type="checkbox"/>
Smoke Detector(s)	<input checked="" type="checkbox"/>	<input type="checkbox"/>			
Comments / Recommendations					
Smoke Detectors #ASH-172522 & ASH-172710					
FIRE FIGHTING EQUIPMENT:					
	Space	Adjacent		Space	Adjacent
Dry Powder Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>	CO ₂ Extinguisher(s)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
H ₂ O Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>	Foam Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>
Fixed H ₂ O (Deluge, Sprinklers, etc.)	<input type="checkbox"/>		Fire Water Hose(s)	<input type="checkbox"/>	<input type="checkbox"/>
Fixed Halon	<input type="checkbox"/>		Fixed CO ₂	<input checked="" type="checkbox"/>	
Other: <u>Fire Axe</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>			
Comments / Recommendations					
No fire station in or adjacent to this space. Nearest stations are in E/R's 2 & 4, in the mud pump room and stbd side of main CO ₂ locker. All will require an additional length of hose to reach space.					
COMMUNICATIONS, ETC. :					
Telephone	<input checked="" type="checkbox"/>	CCTV	<input type="checkbox"/>	PA Speaker	<input checked="" type="checkbox"/>
Fire Alarm Button	<input checked="" type="checkbox"/>	Bilge Alarm	<input type="checkbox"/>	Emergency Lighting	<input checked="" type="checkbox"/>
GA Alarm Button	<input checked="" type="checkbox"/>	General Alarm	<input checked="" type="checkbox"/>	Others: <u>GMDSS Station, Talk-back, Soundpowered</u>	<input checked="" type="checkbox"/>
Comments / Recommendations					
Telephone #'s 268 & 269 Talk-back #17 Sound Powered Phone #13					
ESCAPE ROUTES:					
Primary: Exit aft to 2 nd Deck, then up to Main Deck Alternate: Exit port or stbd into switchboard rooms Alternate: Exit forward into passageway to Mud Pump Room					

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COMPARTMENT: Engine Control Room		
FIRE:		
Ignition Sources / Fuel		Preventions (Note EX equipment)
Electric wiring /shorts Class A materials		Preventive maintenance and inspections Housekeeping
Consequences		Mitigations
Possibility of damage to equipment/compartment Possibility of injury to personnel		Firefighting capabilities Availability of medical treatment including medivac
Risk Rank: 14	Risk Category: Medium	ALARP?: Yes
EXPLOSION:		
Ignition Sources / Fuel		Preventions (Note EX equipment)
Consequences		Mitigations
Risk Rank:	Risk Category:	ALARP?: Yes / No
FLOOD:		
Hazards		Preventions
		Drains.
Consequences		Mitigations
Risk Rank:	Risk Category:	ALARP?: Yes / No
OTHER:		
Hazards		Preventions
Consequences		Mitigations
Risk Rank:	Risk Category:	ALARP?:
RECOMMENDATIONS:		

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COMPARTMENT NAME: Engine Room #1													
LOCATION: Port Aft, 2 nd and 3 rd Decks													
DIMENSIONS: 1219m3, 22m x 10m	MANNING: As required												
POWER / FLUID / CONTROL LINES: 7 MW Diesel generator with associated auxiliary equipment, 11 KVA lines, 450 V lines, elevator shaft, stairway to column, ventilation to column, fire pump #2, fuel pump and piping, lube oil pump and piping, auxiliary fresh water pumps and coolers, rig air lines, potable water lines													
CONTROL SYSTEMS: LP-051 panel (236051), LP-050 panel (236050), Fire and Gas junction box (FJBCO1), elevator control panel (268003), No.2 connection panel for welding outlets													
HVAC / DUCTING: Supply vent fan – SF1, Exhaust vent fan – EF1, Supply to Port Aft column ducting along elevator shaft. DWG Ref. # HRBS-H68-000-H1010 sheet 7/13													
PASSIVE FIRE PROTECTION:													
Deck: C Forward Bulkhead: A60 Port Bulkhead: C	Deckhead: C Aft Bulkhead: C Starboard Bulkhead: A60												
Comments / Recommendations 30 Bar start air receivers relief valve piping is piped to the outside													
FIRE/GAS DETECTION:													
Constant Manning Flame Detector(s) Heat Detector(s) Smoke Detector(s)	<table border="1"><thead><tr><th>Space</th><th>Duct</th></tr></thead><tbody><tr><td><input type="checkbox"/></td><td><input type="checkbox"/></td></tr><tr><td><input checked="" type="checkbox"/></td><td><input type="checkbox"/></td></tr><tr><td><input type="checkbox"/></td><td><input type="checkbox"/></td></tr><tr><td><input checked="" type="checkbox"/></td><td><input type="checkbox"/></td></tr></tbody></table>	Space	Duct	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
Space	Duct												
<input type="checkbox"/>	<input type="checkbox"/>												
<input checked="" type="checkbox"/>	<input type="checkbox"/>												
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<input checked="" type="checkbox"/>	<input type="checkbox"/>												
Hydrocarbon Detector(s) H ₂ S Detector(s) Other: _____	<table border="1"><thead><tr><th>Space</th><th>Duct</th></tr></thead><tbody><tr><td><input type="checkbox"/></td><td><input checked="" type="checkbox"/></td></tr><tr><td><input type="checkbox"/></td><td><input checked="" type="checkbox"/></td></tr><tr><td><input type="checkbox"/></td><td><input type="checkbox"/></td></tr></tbody></table>	Space	Duct	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
Space	Duct												
<input type="checkbox"/>	<input checked="" type="checkbox"/>												
<input type="checkbox"/>	<input checked="" type="checkbox"/>												
<input type="checkbox"/>	<input type="checkbox"/>												
Comments / Recommendations													
FIRE FIGHTING EQUIPMENT:													
Dry Powder Extinguisher(s) H ₂ O Extinguisher(s) Fixed H ₂ O (Deluge, Sprinklers, etc.) Fixed Halon Other: _____	<table border="1"><thead><tr><th>Space</th><th>Adjacent</th></tr></thead><tbody><tr><td><input type="checkbox"/></td><td><input type="checkbox"/></td></tr><tr><td><input checked="" type="checkbox"/></td><td><input checked="" type="checkbox"/></td></tr><tr><td><input type="checkbox"/></td><td><input type="checkbox"/></td></tr><tr><td><input type="checkbox"/></td><td><input type="checkbox"/></td></tr><tr><td><input type="checkbox"/></td><td><input type="checkbox"/></td></tr></tbody></table>	Space	Adjacent	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Space	Adjacent												
<input type="checkbox"/>	<input type="checkbox"/>												
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>												
<input type="checkbox"/>	<input type="checkbox"/>												
<input type="checkbox"/>	<input type="checkbox"/>												
<input type="checkbox"/>	<input type="checkbox"/>												
CO ₂ Extinguisher(s) Foam Extinguisher(s) Fire Water Hose(s) Fixed CO ₂	<table border="1"><thead><tr><th>Space</th><th>Adjacent</th></tr></thead><tbody><tr><td><input checked="" type="checkbox"/></td><td><input checked="" type="checkbox"/></td></tr><tr><td><input checked="" type="checkbox"/></td><td><input checked="" type="checkbox"/></td></tr><tr><td><input checked="" type="checkbox"/></td><td><input checked="" type="checkbox"/></td></tr><tr><td><input checked="" type="checkbox"/></td><td><input type="checkbox"/></td></tr><tr><td><input type="checkbox"/></td><td><input type="checkbox"/></td></tr></tbody></table>	Space	Adjacent	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Space	Adjacent												
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>												
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>												
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>												
<input checked="" type="checkbox"/>	<input type="checkbox"/>												
<input type="checkbox"/>	<input type="checkbox"/>												
Comments / Recommendations Generator has fixed CO ₂ system, Semi portable CO ₂ also available in space													

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COMMUNICATIONS, ETC. :

Telephone	<input checked="" type="checkbox"/>	CCTV	<input checked="" type="checkbox"/>	PA Speaker	<input checked="" type="checkbox"/>
Fire Alarm Button	<input checked="" type="checkbox"/>	Bilge Alarm	<input type="checkbox"/>	Emergency Lighting	<input checked="" type="checkbox"/>
GA Alarm Button	<input type="checkbox"/>	General Alarm	<input checked="" type="checkbox"/>	Other:	<input type="checkbox"/>

Comments / Recommendations

Space has "Dead Man" button

ESCAPE ROUTES:

Primary: FWD to Mud pump room on 3rd deck. Alternative: 1. Fwd to weld shop on 2nd deck; 2. Aft to main deck; 3. Aft and STBD to AMR #2 on 3rd deck; 4. Aft and STBD to switchboard room #1

COMPARTMENT: Engine Room #1

FIRE:

Ignition Sources / Fuel

Electric wiring shorts, metal on metal wear, sparks from hot work if ongoing. Fuel oil and lube oil

Preventions (Note EX equipment)

Preventive maintenance and inspections
Engine protection system/required by class society
housekeeping

Consequences

Possibility of damage to equipment/compartment
Possibility of injury to personnel

Mitigations

ESD 1/1, Remote ventilation shutdown, fuel supply valves outside of space, ventilation fusible links
Firefighting capabilities. Redundant engines
Availability of medical treatment including medivac

Risk Rank: 9

Risk Category: Low

ALARP?: Yes

EXPLOSION:

Ignition Sources / Fuel

Crankcase explosion: overheated bearing
Lube oil and fuel oil

Preventions (Note EX equipment)

Engine protection system as required by class society, Engine performance monitoring by SIMRAD, Personnel rounds of equipment

Consequences

Possibility of damage to equipment/compartment
Possibility of injury to personnel

Mitigations

ESD 1/1, Remote ventilation shutdown, fuel supply valves outside of space, ventilation fusible links
Firefighting capabilities. Redundant engines
Availability of medical treatment including medivac

Risk Rank: 9

Risk Category: Low

ALARP?: Yes

FLOOD:

Hazards

Could be from ruptured salt water lines but not from the sea.

Preventions

Preventive maintenance and inspections

Consequences

No permanent installation of bilge pumping equipment, Flooding could flow to other spaces.

Mitigations

Systems supplying the water may be secured. This would result in the shutdown of other systems using the water.

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Risk Rank: 9	Risk Category: Low	ALARP?: Yes
OTHER: Electrical shock		
Hazards		Preventions
Contact with live energy sources		Preventive maintenance and inspections PPE, PTW, energy isolation
Consequences		Mitigations
Possibility of injury to personnel Possibility of fatality		Availability of medical treatment including medivac
Risk Rank: 15	Risk Category: Medium	ALARP?: Yes
RECOMMENDATIONS:		

COMPARTMENT NAME: Engine Room Store- Port											
LOCATION: Port Aft 2 nd Deck- Outboard of Engine Room #1											
DIMENSIONS: 9m X 6m	MANNING: As required										
POWER / FLUID / CONTROL LINES:											
120V Outlet and Lighting Cables #2 Connection for Welding Outlets (WOJB-2) Fresh water lines for Engine Room #1 Pneumatic control lines Fire water	Sea water lines Fire and Gas Junction Box (FJBC01) Battery Charger (248205A) Rig air lines Control Signal Cabling										
CONTROL SYSTEMS:											
Main Feeder Control Panel (Port Aft) (268003) Fire Pump #2 Controls (LCP-322002) Elevator Main Control Panel (268003) Panel LP-050 (236050)											
HVAC / DUCTING:											
HVAC Ventilation Ducting Fire Dampers (FD-28/34, FD-30, FD-31, FD-33/38, FD-35, FD-36, FD-37, FD-64, FD-75/76, FD-99, FD-101)											
PASSIVE FIRE PROTECTION:											
Deck: A-0 Forward Bulkhead: A-60 Port Bulkhead: A-60	Deckhead: A-60 Aft Bulkhead: A-0 Starboard: N/A Bulkhead:										
Comments / Recommendations Space open onto Engine Room #1 on inboard side Penetrations for piping in aft bulkhead											
FIRE/GAS DETECTION:											
Constant Manning Flame Detector(s) Heat Detector(s) Smoke Detector(s)	<table border="1"> <thead> <tr> <th>Space</th> <th>Duct</th> </tr> </thead> <tbody> <tr> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td><input checked="" type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> </tbody> </table>	Space	Duct	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Space	Duct										
<input type="checkbox"/>	<input type="checkbox"/>										
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<input checked="" type="checkbox"/>	<input type="checkbox"/>										
Hydrocarbon Detector(s) H ₂ S Detector(s) Other: _____	<table border="1"> <thead> <tr> <th>Space</th> <th>Duct</th> </tr> </thead> <tbody> <tr> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> </tbody> </table>	Space	Duct	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Space	Duct										
<input type="checkbox"/>	<input type="checkbox"/>										
<input type="checkbox"/>	<input type="checkbox"/>										
<input type="checkbox"/>	<input type="checkbox"/>										
Comments / Recommendations Smoke Detector #ASH172912											

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FIRE FIGHTING EQUIPMENT:

	Space	Adjacent		Space	Adjacent
Dry Powder Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>	CO ₂ Extinguisher(s)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
H ₂ O Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>	Foam Extinguisher(s)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Fixed H ₂ O (Deluge, Sprinklers, etc.)	<input type="checkbox"/>		Fire Water Hose(s)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Fixed Halon	<input type="checkbox"/>		Fixed CO ₂	<input checked="" type="checkbox"/>	
Other: _____	<input type="checkbox"/>	<input type="checkbox"/>			

Comments / Recommendations

Fire Station #61
CO2 Extinguisher #132

COMMUNICATIONS, ETC. :

Telephone	<input checked="" type="checkbox"/>	CCTV	<input type="checkbox"/>	PA Speaker	<input checked="" type="checkbox"/>
Fire Alarm Button	<input checked="" type="checkbox"/>	Bilge Alarm	<input type="checkbox"/>	Emergency Lighting	<input checked="" type="checkbox"/>
GA Alarm Button	<input type="checkbox"/>	General Alarm	<input checked="" type="checkbox"/>	Other:	<input type="checkbox"/>

Comments / Recommendations

Telephone #371 (Engine Room #1)
Fire Alarm Button #XS172911

ESCAPE ROUTES:

Primary: Aft to passageway, then up to main deck
Alternate: Forward into Welding Shop
Alternate: Ladder down to Engine Room #1

COMPARTMENT: Engine Store Room Port

FIRE:

Ignition Sources / Fuel	Preventions (Note EX equipment)
Electric wiring/shorts	Preventive maintenance and inspections
Consequences	Mitigations
Possibility of damage to equipment/compartments Possibility of injury to personnel	Firefighting capabilities Availability of medical treatment
Risk Rank: 9	Risk Category: Low
ALARP?: Yes	


EXPLOSION:

Ignition Sources / Fuel	Preventions (Note EX equipment)
Consequences	Mitigations
Risk Rank:	Risk Category:
ALARP?: Yes / No	

FLOOD:

Hazards	Preventions
---------	-------------

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		Drains.
Consequences		Mitigations
Risk Rank:	Risk Category:	ALARP?: Yes / No
OTHER:		
Hazards		Preventions
Consequences		Mitigations
Risk Rank:	Risk Category:	ALARP?:
RECOMMENDATIONS:		

COMPARTMENT NAME:	Equipment Room fwd of Driller's store		
LOCATION:	Stbd side, 46m above base line, fwd of drill store		
DIMENSIONS:	Approx. 2m x 4m	MANNING:	None
POWER / FLUID / CONTROL LINES:			
480V and 120 V cables and Breaker panels. 208v.			
CONTROL SYSTEMS:			
Switch for exhaust fan inside door. Switch for supply fan outside door. Standby power panel, normal power panel,			
HVAC / DUCTING:			
Forced supply and exhaust. No dampers.			
PASSIVE FIRE PROTECTION:			
Deck:	A-0	Deckhead:	A-0
Forward Bulkhead:	A-0	Aft Bulkhead:	A-0
Port Bulkhead:	A-0	Starboard Bulkhead:	A-0

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Comments / Recommendations

No dampers on supply or exhaust ducting.

FIRE/GAS DETECTION:

	Space	Duct		Space	Duct
Constant Manning	<input type="checkbox"/>		Hydrocarbon Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>
Flame Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>	H ₂ S Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>
Heat Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>	Other: _____	<input type="checkbox"/>	<input type="checkbox"/>
Smoke Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>			

Comments / Recommendations

Only indication of fire would be visual indication of smoke issuing from exhaust.

FIRE FIGHTING EQUIPMENT:

	Space	Adjacent		Space	Adjacent
Dry Powder Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>	CO ₂ Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>
H ₂ O Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>	Foam Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>
Fixed H ₂ O (Deluge, Sprinklers, etc.)	<input type="checkbox"/>		Fire Water Hose(s)	<input type="checkbox"/>	<input type="checkbox"/>
Fixed Halon	<input type="checkbox"/>		Fixed CO ₂	<input type="checkbox"/>	
Other: _____	<input type="checkbox"/>	<input type="checkbox"/>			

Comments / Recommendations

Nearest hose reel and extinguisher are on rig floor aft of the drawworks

COMMUNICATIONS, ETC. :

Telephone	<input type="checkbox"/>	CCTV	<input type="checkbox"/>	PA Speaker	<input type="checkbox"/>
Fire Alarm Button	<input type="checkbox"/>	Bilge Alarm	<input type="checkbox"/>	Emergency Lighting	<input checked="" type="checkbox"/>
GA Alarm Button	<input type="checkbox"/>	General Alarm	<input type="checkbox"/>	Other: _____	<input type="checkbox"/>

Comments / Recommendations

GA alarm button located directly outside space.

ESCAPE ROUTES:

Out the only door and fwd down to the main deck or aft into the drill store.

COMPARTMENT: Equipment Room fwd of Driller's Store


FIRE:

Ignition Sources / Fuel	Preventions (Note EX equipment)
Electric wiring/shorts Class A materials Lubricants/greases	Preventive maintenance and inspections Housekeeping
Consequences	Mitigations
Possibility of damage to equipment/compartments Possibility of injury to personnel	Firefighting capabilities Availability of medical treatment including medivac
Risk Rank: 9	Risk Category: Low
	ALARP?: Yes

EXPLOSION:

Ignition Sources / Fuel	Preventions (Note EX equipment)
Consequences	Mitigations

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Risk Rank:	Risk Category: ALARP?: Yes / No
FLOOD:	
Hazards	Preventions
	Drains.
Consequences	Mitigations
Risk Rank:	Risk Category: ALARP?: Yes / No
OTHER:	
Hazards	Preventions
Consequences	Mitigations
RECOMMENDATIONS:	

COMPARTMENT NAME:	ET Shop		
LOCATION:	3 rd Deck Aft Centerline- Fwd of Engine Control Room		
DIMENSIONS:	5m X 5m	MANNING:	Intermittent
POWER / FLUID / CONTROL LINES:			
24V Distribution Panel (181053-2), 120v #2 Navigation & Communication AC Pop. Panel (248104) Fiber Optic Control Panel (LAN-368002) Gyro Distributor Box (181053)			
CONTROL SYSTEMS:			
Akusta System Gyro System 01			

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HVAC / DUCTING:

HVAC Ventilation Ducting

PASSIVE FIRE PROTECTION:

Deck:	A-60	Deckhead:	A-60
Forward Bulkhead:	A-60	Aft Bulkhead:	A-60
Port Bulkhead:	A-60	Starboard Bulkhead:	A-60

Comments / Recommendations

FIRE/GAS DETECTION:

	Space	Duct		Space	Duct
Constant Manning	<input type="checkbox"/>		Hydrocarbon Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>
Flame Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>	H ₂ S Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>
Heat Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>	Other: _____	<input type="checkbox"/>	<input type="checkbox"/>
Smoke Detector(s)	<input checked="" type="checkbox"/>	<input type="checkbox"/>			

Comments / Recommendations

Smoke Detector #ASH-172708

FIRE FIGHTING EQUIPMENT:

	Space	Adjacent		Space	Adjacent
Dry Powder Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>	CO ₂ Extinguisher(s)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
H ₂ O Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>	Foam Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>
Fixed H ₂ O (Deluge, Sprinklers, etc.)	<input type="checkbox"/>		Fire Water Hose(s)	<input type="checkbox"/>	<input type="checkbox"/>
Fixed Halon	<input type="checkbox"/>		Fixed CO ₂	<input type="checkbox"/>	
Other: _____	<input type="checkbox"/>	<input type="checkbox"/>			

Comments / Recommendations

CO₂ Extinguisher in 480V Switchboard Room to Stbd of Space
CO₂ Release for 480V Switchboard Room (Stbd) in space

COMMUNICATIONS, ETC. :

Telephone	<input checked="" type="checkbox"/>	CCTV	<input type="checkbox"/>	PA Speaker	<input checked="" type="checkbox"/>
Fire Alarm Button	<input type="checkbox"/>	Bilge Alarm	<input type="checkbox"/>	Emergency Lighting	<input checked="" type="checkbox"/>
GA Alarm Button	<input type="checkbox"/>	General Alarm	<input checked="" type="checkbox"/>	Other:	<input type="checkbox"/>

Comments / Recommendations

Telephone #270

ESCAPE ROUTES:

Exit to port into passageway
Exit to stbd in 480V Switchboard Room

COMPARTMENT: ET Shop

FIRE:

Ignition Sources / Fuel

Electric wiring/shorts
Heat gun
Soldering iron
Class A materials

Preventions (Note EX equipment)

Preventive maintenance and inspections
Care in the use of heat generating hand tools

Consequences

Possibility of damage to equipment/compartment
Possibility of injury to personnel

Mitigations

Firefighting capabilities
Availability of medical treatment including medivac

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Risk Rank: 9	Risk Category: Low	ALARP?: Yes
EXPLOSION:		
Ignition Sources / Fuel	Preventions (Note EX equipment)	
Consequences	Mitigations	
Risk Rank:	Risk Category:	ALARP?: Yes / No
FLOOD:		
Hazards	Preventions	
	Drains.	
Consequences	Mitigations	
Risk Rank:	Risk Category:	ALARP?: Yes / No
OTHER:		
Hazards	Preventions	
Consequences	Mitigations	
RECOMMENDATIONS:		

COMPARTMENT NAME:	Fuel Oil Purifier Room Port
LOCATION:	Port Aft – 3 rd deck

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DIMENSIONS: 149m3, 6.9m x 6.8m	MANNING: Not Normally Manned
---------------------------------------	-------------------------------------

POWER / FLUID / CONTROL LINES: 120v, sea water, rig air, pot water Lube oil, fire water, diesel
--

CONTROL SYSTEMS: IJB-302 instrument junction box, IJB-301 instrument junction box, controls for #1&2 fuel oil purifiers and lube oil purifier.
--

HVAC / DUCTING: Natural supply air duct, Exhaust fan – EF59. DWG Ref. # HRBS-H68-000-H1010 sheet 7/13

PASSIVE FIRE PROTECTION:			
Deck:	C	Deckhead:	C
Forward Bulkhead:	C	Aft Bulkhead:	A60
Port Bulkhead:	C	Starboard Bulkhead:	C

Comments / Recommendations

FIRE/GAS DETECTION:					
	Space	Duct		Space	Duct
Constant Manning	<input type="checkbox"/>		Hydrocarbon Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>
Flame Detector(s)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	H ₂ S Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>
Heat Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>	Other: _____	<input type="checkbox"/>	<input type="checkbox"/>
Smoke Detector(s)	<input checked="" type="checkbox"/>	<input type="checkbox"/>			

Comments / Recommendations

FIRE FIGHTING EQUIPMENT:					
	Space	Adjacent		Space	Adjacent
Dry Powder Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>	CO ₂ Extinguisher(s)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
H ₂ O Extinguisher(s)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Foam Extinguisher(s)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Fixed H ₂ O (Deluge, Sprinklers, etc.)	<input type="checkbox"/>		Fire Water Hose(s)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Fixed Halon	<input type="checkbox"/>		Fixed CO ₂	<input checked="" type="checkbox"/>	
Other: _____	<input type="checkbox"/>	<input type="checkbox"/>			

Comments / Recommendations

COMMUNICATIONS, ETC. :			
Telephone	<input checked="" type="checkbox"/>	CCTV	<input type="checkbox"/>
Fire Alarm Button	<input type="checkbox"/>	Bilge Alarm	<input type="checkbox"/>
GA Alarm Button	<input type="checkbox"/>	General Alarm	<input type="checkbox"/>
		PA Speaker	<input checked="" type="checkbox"/>
		Emergency Lighting	<input checked="" type="checkbox"/>
		Other: _____	<input type="checkbox"/>

Comments / Recommendations
Fire alarm buttons in adjacent spaces (engine room #1 and mud pump room).

ESCAPE ROUTES:

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Primary: Aft to engine room #1, Alternative: STBD to mud pump room

COMPARTMENT: Fuel Oil Purifier Room Port			
FIRE:			
Ignition Sources / Fuel		Preventions <i>(Note EX equipment)</i>	
Electric wiring/shorts (arcing), Metal to metal contact Diesel, lube oil		Equipment protection supplied by manufacturer for automatic operation, Preventive maintenance and inspections. Housekeeping	
Consequences		Mitigations	
Damage to equipment/compartment Possibility of injury to personnel		Firefighting capabilities ESD 1-8, Remote shutdown of ventilation, ventilation fusible links Availability of medical treatment including medivac	
Risk Rank: 9	Risk Category: Low		ALARP?: Yes
EXPLOSION:			
Ignition Sources / Fuel		Preventions <i>(Note EX equipment)</i>	
Electric wiring/shorts (arcing), Metal to metal contact Diesel fumes Lube oil		Equipment protection supplied by manufacturer for automatic operation, Preventive maintenance and inspections. Housekeeping	
Consequences		Mitigations	
Damage to equipment/compartment Possibility of injury to personnel		Firefighting capabilities ESD 1-8, Remote shutdown of ventilation, ventilation fusible links Availability of medical treatment including medivac	
Risk Rank: 9	Risk Category: Low		ALARP?: Yes / No
FLOOD:			
Hazards		Preventions	
Possibly from sea water lines		Preventive maintenance and inspections.	
Consequences		Mitigations	
No permanent installation of bilge pumping equipment. Flooding could flow to other spaces.		Systems supplying the water may be secured. This would result in the shutdown of other systems using the water.	
Risk Rank: 9	Risk Category: Low		ALARP?: Yes
OTHER:			
Hazards		Preventions	
Consequences		Mitigations	

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Risk Rank:		Risk Category:	ALARP?:
RECOMMENDATIONS:			

COMPARTMENT NAME:	Galley		
LOCATION:	2 nd deck, accommodation block, outboard of mess room		
DIMENSIONS:	Approx. 12m x 5.5m	MANNING:	3
POWER / FLUID / CONTROL LINES:			
120v, pot water			

CONTROL SYSTEMS:
Controls for Supply and Exhaust fans, Dishwasher, hood fans, Disposals, Ovens.

HVAC / DUCTING:
Isolated ventilation system, separate exhaust over stove. Fire zone #9

PASSIVE FIRE PROTECTION:			
Deck:	A-0	Deckhead:	A-0
Forward Bulkhead:	A-0	Aft Bulkhead:	B-30
Port Bulkhead:	A-0	Starboard Bulkhead:	A-0

Comments / Recommendations
The serving line and desert area have partitions with a heat activated release.

FIRE/GAS DETECTION:					
	Space	Duct		Space	Duct
Constant Manning	<input checked="" type="checkbox"/>		Hydrocarbon Detector(s)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Flame Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>	H ₂ S Detector(s)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Heat Detector(s)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Other: _____	<input type="checkbox"/>	<input type="checkbox"/>
Smoke Detector(s)	<input checked="" type="checkbox"/>	<input type="checkbox"/>			

Comments / Recommendations

FIRE FIGHTING EQUIPMENT:					
	Space	Adjacent		Space	Adjacent
Dry Powder Extinguisher(s)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	CO ₂ Extinguisher(s)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
H ₂ O Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>	Foam Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>
Fixed H ₂ O (Deluge, Sprinklers, etc.)	<input checked="" type="checkbox"/>		Fire Water Hose(s)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Fixed Halon	<input type="checkbox"/>		Fixed CO ₂	<input type="checkbox"/>	

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Other: Fire Blanket	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
Comments / Recommendations Range Hood has a Fire Suppression system using wet chemical R-102				

COMMUNICATIONS, ETC. :			
Telephone	<input checked="" type="checkbox"/>	CCTV	<input type="checkbox"/>
Fire Alarm Button	<input checked="" type="checkbox"/>	Bilge Alarm	<input type="checkbox"/>
GA Alarm Button	<input type="checkbox"/>	General Alarm	<input checked="" type="checkbox"/>
		PA Speaker	<input checked="" type="checkbox"/>
		Emergency Lighting	<input type="checkbox"/>
		Other:	<input type="checkbox"/>
Comments / Recommendations			


ESCAPE ROUTES:
Port door, through mess room then forward through door to lifeboat deck.

COMPARTMENT: Galley		
FIRE:		
Ignition Sources / Fuel	Preventions (Note EX equipment)	
Electric wiring/shorts	Preventive maintenance and inspections	
Hot equipment	Housekeeping - special care taken with oily cloths	
Cooking oil/deep fat fryer	Care taken in cooking	
Oily/greasy cleaning cloths	Catering crew trained in fire prevention	
Consequences	Mitigations	
Possibility of damage to equipment/compartment	Firefighting capabilities	
Possibility of injury to personnel	Availability of medical treatment including medivac	
Risk Rank: 9	Risk Category: Low	ALARP?: Yes

EXPLOSION:		
Ignition Sources / Fuel	Preventions (Note EX equipment)	
Consequences	Mitigations	
Risk Rank:	Risk Category:	ALARP?: Yes / No

FLOOD:		
Hazards	Preventions	
	Drains.	
Consequences	Mitigations	
Risk Rank:	Risk Category:	ALARP?: Yes / No

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OTHER: Burns		
Hazards		Preventions
Contact with hot surfaces, hot oils		PPE Housekeeping
Consequences		Mitigations
Possibility of injury to personnel		Availability of medical treatment including medivac
Risk Rank: 9	Risk Category: Low	ALARP?: Yes
RECOMMENDATIONS:		

COMPARTMENT NAME: Gymnasium / Sauna					
LOCATION: 3 rd deck, aft end of accommodation, centerline					
DIMENSIONS: Approx. 3.5m x 9m	MANNING: 0-4				
POWER / FLUID / CONTROL LINES:					
120V power outlets, pot water					
CONTROL SYSTEMS:					
Fire main isolation valve Sauna controls					
HVAC / DUCTING:					
Fire Zone 12 (sauna) and 13 (gym)					
PASSIVE FIRE PROTECTION:					
Deck: A-0	Deckhead: A-0				
Forward Bulkhead: B-30	Aft Bulkhead: A-60				
Port Bulkhead: A-0	Starboard Bulkhead: B-30				
Comments / Recommendations					
FIRE/GAS DETECTION:					
Constant Manning	Space <input type="checkbox"/>	Duct <input type="checkbox"/>	Hydrocarbon Detector(s)	Space <input type="checkbox"/>	Duct <input type="checkbox"/>
Flame Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>	H ₂ S Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>
Heat Detector(s)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Other: _____	<input type="checkbox"/>	<input type="checkbox"/>
Smoke Detector(s)	<input checked="" type="checkbox"/>	<input type="checkbox"/>			
Comments / Recommendations					

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FIRE FIGHTING EQUIPMENT:					
	Space	Adjacent		Space	Adjacent
Dry Powder Extinguisher(s)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	CO ₂ Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>
H ₂ O Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>	Foam Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>
Fixed H ₂ O (Deluge, Sprinklers, etc.)	<input checked="" type="checkbox"/>		Fire Water Hose(s)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Fixed Halon	<input type="checkbox"/>		Fixed CO ₂	<input type="checkbox"/>	
Other: _____	<input type="checkbox"/>	<input type="checkbox"/>			

Comments / Recommendations

COMMUNICATIONS, ETC. :			
Telephone	<input checked="" type="checkbox"/>	CCTV	<input type="checkbox"/>
Fire Alarm Button	<input type="checkbox"/>	Bilge Alarm	<input type="checkbox"/>
GA Alarm Button	<input type="checkbox"/>	General Alarm	<input checked="" type="checkbox"/>
		PA Speaker	<input checked="" type="checkbox"/>
		Emergency Lighting	<input checked="" type="checkbox"/>
		Other: Signal light tree	<input checked="" type="checkbox"/>

Comments / Recommendations

ESCAPE ROUTES:
Out fwd door, straight to door leading to outside 3 rd deck directly underneath lifeboat deck.


COMPARTMENT: Gymnasium / Sauna

FIRE:		
Ignition Sources / Fuel	Preventions (Note EX equipment)	
Heating element in sauna Wood construction	Preventive maintenance and inspection for timer	
Consequences	Mitigations	
Possibility of damage to compartment Possibility of injury to personnel	Firefighting capabilities availability of medical treatment including medivac	
Risk Rank: 9	Risk Category: Low	ALARP?: Yes


EXPLOSION:		
Ignition Sources / Fuel	Preventions (Note EX equipment)	
Consequences	Mitigations	
Risk Rank:	Risk Category:	ALARP?: Yes / No

FLOOD:	
Hazards	Preventions
	Drains.

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Consequences			Mitigations		
Risk Rank:	Risk Category:		ALARP?: Yes / No		
OTHER:					
Hazards			Preventions		
Consequences			Mitigations		
Risk Rank:	Risk Category:		ALARP?: Yes / No		
RECOMMENDATIONS:					

COMPARTMENT NAME:		Helideck			
LOCATION:		Port Fwd, above CCR/Bridge			
DIMENSIONS:		Octagonal 22.3 meter diameter		MANNING: Intermittent helo ops/ recreation	
POWER / FLUID / CONTROL LINES:					
120v, Helifuel dispensing skid port aft. Firefighting water and foam lines					
CONTROL SYSTEMS:					
Controls for helifuel and helifoam					
HVAC / DUCTING:					
Open deck					
PASSIVE FIRE PROTECTION:					
Deck:		A		Deckhead: Open	
Forward Bulkhead:		Open		Aft Bulkhead: Open	
Port Bulkhead:		Open		Starboard Bulkhead: Open	
Comments / Recommendations					
FIRE/GAS DETECTION:					
	Space	Duct		Space	Duct
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Constant Manning	<input type="checkbox"/>		Hydrocarbon Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>
Flame Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>	H ₂ S Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>
Heat Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>	Other: _	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Smoke Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>			

Comments / Recommendations

CCTV monitoring and manned during helo ops

FIRE FIGHTING EQUIPMENT:

	Space	Adjacent		Space	Adjacent
Dry Powder Extinguisher(s)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	CO ₂ Extinguisher(s)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
H ₂ O Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>	Foam Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>
Fixed H ₂ O (Deluge, Sprinklers, etc.)	<input checked="" type="checkbox"/>		Fire Water Hose(s)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Fixed Halon	<input type="checkbox"/>		Fixed CO ₂	<input type="checkbox"/>	
Other: Foam monitors	<input checked="" type="checkbox"/>	<input type="checkbox"/>			

Comments / Recommendations

Space is manned by firefighters during helo ops.

COMMUNICATIONS, ETC. :

Telephone	<input checked="" type="checkbox"/>	CCTV	<input checked="" type="checkbox"/>	PA Speaker	<input type="checkbox"/>
Fire Alarm Button	<input checked="" type="checkbox"/>	Bilge Alarm	<input type="checkbox"/>	Emergency Lighting	<input type="checkbox"/>
GA Alarm Button	<input type="checkbox"/>	General Alarm	<input type="checkbox"/>	Other: Aviation Radio	<input checked="" type="checkbox"/>

Comments / Recommendations

HLO in radio contact with helicopter pilot and bridge.

No P/A speaker on Helideck, however main deck P/A speakers are audible from helideck.

ESCAPE ROUTES:

3 – starboard side, forward and port aft. All are clearly marked

COMPARTMENT: Helideck

FIRE:

Ignition Sources / Fuel		Preventions (Note EX equipment)	
Helicopter crash (major hazard tables)			
Consequences		Mitigations	
Risk Rank:	Risk Category:	ALARP?: Yes / No	

EXPLOSION:

Ignition Sources / Fuel		Preventions (Note EX equipment)	
Helicopter crash (major hazard tables)			
Consequences		Mitigations	

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Risk Rank:	Risk Category:	ALARP?: Yes / No
FLOOD:		
Hazards	Preventions	
	Drains.	
Consequences	Mitigations	
Risk Rank:	Risk Category:	ALARP?: Yes / No
OTHER:		
Hazards	Preventions	
Helicopter crash (major hazard tables)		
Consequences	Mitigations	
Risk Rank:	Risk Category:	ALARP?: Yes / No
RECOMMENDATIONS:		

COMPARTMENT NAME: Hospital	
LOCATION: 2 nd Deck Accommodations- Across from mess deck	
DIMENSIONS: 11m X 9m	MANNING: 1
POWER / FLUID / CONTROL LINES:	
120V Outlet and Lighting Cables Breathing Oxygen Supply Bottles Potable Water	
CONTROL SYSTEMS:	
Local control for exhaust fan.	
HVAC / DUCTING:	
Has its own isolated ventilation system	
PASSIVE FIRE PROTECTION:	
Deck: A	Deckhead: A
Forward Bulkhead: B-30	Aft Bulkhead: B-30
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Port Bulkhead: B-30	Starboard Bulkhead: B-30
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Comments / Recommendations

FIRE/GAS DETECTION:

	Space	Duct		Space	Duct
Constant Manning	<input checked="" type="checkbox"/>		Hydrocarbon Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>
Flame Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>	H ₂ S Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>
Heat Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>	Other: _____	<input type="checkbox"/>	<input type="checkbox"/>
Smoke Detector(s)	<input checked="" type="checkbox"/>	<input type="checkbox"/>			

Comments / Recommendations Smoke Detector #ASH-172413

FIRE FIGHTING EQUIPMENT:

	Space	Adjacent		Space	Adjacent
Dry Powder Extinguisher(s)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	CO ₂ Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>
H ₂ O Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>	Foam Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>
Fixed H ₂ O (Deluge, Sprinklers, etc.)	<input checked="" type="checkbox"/>		Fire Water Hose(s)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Fixed Halon	<input type="checkbox"/>		Fixed CO ₂	<input type="checkbox"/>	
Other: _____	<input type="checkbox"/>	<input type="checkbox"/>			

Comments / Recommendations Fire Station #21 in passageway

COMMUNICATIONS, ETC. :

Telephone <input checked="" type="checkbox"/>	CCTV <input type="checkbox"/>	PA Speaker <input type="checkbox"/>
Fire Alarm Button <input type="checkbox"/>	Bilge Alarm <input type="checkbox"/>	Emergency Lighting <input checked="" type="checkbox"/>
GA Alarm Button <input type="checkbox"/>	General Alarm <input type="checkbox"/>	Other: Hospital Call Buttons <input checked="" type="checkbox"/>

Comments / Recommendations

Telephone #250. PA speaker has been disconnected to prevent interference with patient care,. consider the installation of a PA speaker with adjustable volume in this space

ESCAPE ROUTES:

When exiting the hospital into the passage way, take a left and go straight through the hatch onto the lifeboat launch deck.
--

COMPARTMENT: Hospital

FIRE:

Ignition Sources / Fuel Electric wiring/shorts Class A materials Medical grade oxygen	Preventions (Note EX equipment) Preventive maintenance and inspections Housekeeping
Consequences Possibility of damage to equipment/compartment Possibility of injury to personnel	Mitigations Firefighting capabilities Availability of medical treatment including medivac

Risk Rank: 9	Risk Category: Low	ALARP?: Yes
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EXPLOSION:

Ignition Sources / Fuel	Preventions (Note EX equipment)
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Consequences		Mitigations	
Risk Rank:	Risk Category:	ALARP?: Yes / No	
FLOOD:			
Hazards		Preventions	
		Drains.	
Consequences		Mitigations	
Risk Rank:	Risk Category:	ALARP?: Yes / No	
OTHER: Biological			
Hazards		Preventions	
Exposure to pathogens		PPE	
Consequences		Mitigations	
Possibility of short and long term health effects		Medical treatment/shore based follow-up	
Risk Rank: 9	Risk Category: Low	ALARP?: Yes	
RECOMMENDATIONS:			

COMPARTMENT NAME:	HPU room stbd		
LOCATION:	3 rd deck, stbd side, inboard of warehouse		
DIMENSIONS:	Approx. 6.5m x 5.5m	MANNING:	None normally
POWER / FLUID / CONTROL LINES:			
480V power, Bulk air, rig air & HP air piping. Dry bulk lines, fresh water lines, Hydraulic oil tank and high pressure hydraulic piping.			

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CONTROL SYSTEMS: Controls for HPU & HP air compressor.					
HVAC / DUCTING: Exhaust FD46, Supply FD41, Fire Zone 16					
PASSIVE FIRE PROTECTION:					
Deck: A-0		Deckhead: A-0			
Forward Bulkhead: A-0		Aft Bulkhead: A-0			
Port Bulkhead: A-0		Starboard Bulkhead: A-0			
Comments / Recommendations					
FIRE/GAS DETECTION:					
	Space	Duct		Space	Duct
Constant Manning	<input type="checkbox"/>		Hydrocarbon Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>
Flame Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>	H ₂ S Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>
Heat Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>	Other: _____	<input type="checkbox"/>	<input type="checkbox"/>
Smoke Detector(s)	<input checked="" type="checkbox"/>	<input type="checkbox"/>			
Comments / Recommendations ASH-172B26, ASH-172B29					
FIRE FIGHTING EQUIPMENT:					
	Space	Adjacent		Space	Adjacent
Dry Powder Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>	CO ₂ Extinguisher(s)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
H ₂ O Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>	Foam Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>
Fixed H ₂ O (Deluge, Sprinklers, etc.)	<input type="checkbox"/>		Fire Water Hose(s)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Fixed Halon	<input type="checkbox"/>		Fixed CO ₂	<input type="checkbox"/>	
Other: Fire axe	<input type="checkbox"/>	<input checked="" type="checkbox"/>			
Comments / Recommendations					
COMMUNICATIONS, ETC. :					
Telephone	<input type="checkbox"/>	CCTV	<input type="checkbox"/>	PA Speaker	<input checked="" type="checkbox"/>
Fire Alarm Button	<input checked="" type="checkbox"/>	Bilge Alarm	<input type="checkbox"/>	Emergency Lighting	<input checked="" type="checkbox"/>
GA Alarm Button	<input type="checkbox"/>	General Alarm	<input checked="" type="checkbox"/>	Other:	<input type="checkbox"/>
Comments / Recommendations					
ESCAPE ROUTES: Fwd to A/C unit room, fwd through accommodation and then port to centerline and out forward door to outside 3 rd deck (below lifeboat deck)					




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COMPARTMENT: HPU Room		
FIRE:		
Ignition Sources / Fuel		Preventions (Note EX equipment)
Electric wiring/short Hydraulic fluid		Preventive maintenance and inspections Housekeeping
Consequences		Mitigations
Possibility of damage to equipment/compartment Possibility of injury to personnel		Firefighting capabilities Availability of medical treatment including medivac
Risk Rank: 9	Risk Category: Low	ALARP?: Yes
EXPLOSION:		
Ignition Sources / Fuel		Preventions (Note EX equipment)
Consequences		Mitigations
Risk Rank:	Risk Category:	ALARP?: Yes / No
FLOOD:		
Hazards		Preventions
		Drains.
Consequences		Mitigations
Risk Rank:	Risk Category:	ALARP?: Yes / No
OTHER: Pressure, burns		
Hazards		Preventions
Contact with live energy sources/ breaks/ruptures in piping Contact with hot surfaces		PPE, energy isolation
Consequences		Mitigations
Possibility of injury to personnel		Availability of medical treatment including medivac
Risk Rank: 9	Risk Category: Low	ALARP?: Yes
RECOMMENDATIONS:		

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COMPARTMENT NAME: HVAC Room (Stbd)																																		
LOCATION: 3 rd Deck- Center Aft, Just Forward of ECR																																		
DIMENSIONS: 12m X 9.2m	MANNING: As Required																																	
POWER / FLUID / CONTROL LINES: Power 120v, fresh water, pot water, rig air AHU-6 480V AC Power Panel																																		
CONTROL SYSTEMS: CU-5 Compressor Panel AHU-6 Control Panel Fire Dampers (FD-73, FD-74, FD-77, FD-81, FD-83, FD-85, FD-87, FD-89) Supply Fan (SF-73)																																		
HVAC / DUCTING: Ventilation																																		
PASSIVE FIRE PROTECTION:																																		
Deck: A-60 Forward Bulkhead: A-60 Port Bulkhead: A-60	Deckhead: A-60 Aft Bulkhead: A-60 Starboard Bulkhead: A-60																																	
Comments / Recommendations																																		
FIRE/GAS DETECTION:																																		
<table border="1" style="width: 100%;"> <thead> <tr> <th></th> <th>Space</th> <th>Duct</th> </tr> </thead> <tbody> <tr> <td>Constant Manning</td> <td><input type="checkbox"/></td> <td></td> </tr> <tr> <td>Flame Detector(s)</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>Heat Detector(s)</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>Smoke Detector(s)</td> <td><input checked="" type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> </tbody> </table>		Space	Duct	Constant Manning	<input type="checkbox"/>		Flame Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>	Heat Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>	Smoke Detector(s)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<table border="1" style="width: 100%;"> <thead> <tr> <th></th> <th>Space</th> <th>Duct</th> </tr> </thead> <tbody> <tr> <td>Hydrocarbon Detector(s)</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>H₂S Detector(s)</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>Other: _____</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> </tbody> </table>		Space	Duct	Hydrocarbon Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>	H ₂ S Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>	Other: _____	<input type="checkbox"/>	<input type="checkbox"/>						
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Other: _____	<input type="checkbox"/>	<input type="checkbox"/>																																
Comments / Recommendations Smoke Detectors ASH-172707 & ASH-172723																																		
FIRE FIGHTING EQUIPMENT:																																		
<table border="1" style="width: 100%;"> <thead> <tr> <th></th> <th>Space</th> <th>Adjacent</th> </tr> </thead> <tbody> <tr> <td>Dry Powder Extinguisher(s)</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>H₂O Extinguisher(s)</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>Fixed H₂O (Deluge, Sprinklers, etc.)</td> <td><input type="checkbox"/></td> <td></td> </tr> <tr> <td>Fixed Halon</td> <td><input type="checkbox"/></td> <td></td> </tr> <tr> <td>Other:</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> </tbody> </table>		Space	Adjacent	Dry Powder Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>	H ₂ O Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>	Fixed H ₂ O (Deluge, Sprinklers, etc.)	<input type="checkbox"/>		Fixed Halon	<input type="checkbox"/>		Other:	<input type="checkbox"/>	<input type="checkbox"/>	<table border="1" style="width: 100%;"> <thead> <tr> <th></th> <th>Space</th> <th>Adjacent</th> </tr> </thead> <tbody> <tr> <td>CO₂ Extinguisher(s)</td> <td><input checked="" type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> </tr> <tr> <td>Foam Extinguisher(s)</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>Fire Water Hose(s)</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>Fixed CO₂</td> <td><input type="checkbox"/></td> <td></td> </tr> </tbody> </table>		Space	Adjacent	CO ₂ Extinguisher(s)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Foam Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>	Fire Water Hose(s)	<input type="checkbox"/>	<input type="checkbox"/>	Fixed CO ₂	<input type="checkbox"/>	
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Other:	<input type="checkbox"/>	<input type="checkbox"/>																																
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CO ₂ Extinguisher(s)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>																																
Foam Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>																																
Fire Water Hose(s)	<input type="checkbox"/>	<input type="checkbox"/>																																
Fixed CO ₂	<input type="checkbox"/>																																	
Comments / Recommendations CO2 Extinguisher #116																																		

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COMMUNICATIONS, ETC. :

Telephone	<input type="checkbox"/>	CCTV	<input type="checkbox"/>	PA Speaker	<input checked="" type="checkbox"/>
Fire Alarm Button	<input type="checkbox"/>	Bilge Alarm	<input type="checkbox"/>	Emergency Lighting	<input checked="" type="checkbox"/>
GA Alarm Button	<input type="checkbox"/>	General Alarm	<input checked="" type="checkbox"/>	Other:	<input type="checkbox"/>

Comments / Recommendations

Fire Alarm Button #XS-172524 in Passageway

ESCAPE ROUTES:

Door to port into passageway
Door aft into 480V Switchgear Room

COMPARTMENT: HVAC Room (Stbd)

FIRE:

Ignition Sources / Fuel	Preventions (Note EX equipment)
Electric wiring/shorts	Preventive maintenance and inspections Proper storage of flammable materials
Consequences	Mitigations
Possibility of damage to equipment/compartment	Firefighting capabilities Availability of medical treatment including medivac
Risk Rank: 9	Risk Category: Low
ALARP?: Yes	

EXPLOSION:

Ignition Sources / Fuel	Preventions (Note EX equipment)
Consequences	Mitigations
Risk Rank:	Risk Category:
ALARP?: Yes / No	


FLOOD:

Hazards	Preventions
	Drains.
Consequences	Mitigations
Risk Rank:	Risk Category:
ALARP?: Yes / No	

OTHER: Electric, hot surfaces

Hazards	Preventions
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Contact with live energy sources Contact with hot surfaces	PPE, PTW, energy isolation Preventive maintenance and inspections
Consequences	Mitigations
Possibility of injury to personnel Possibility of fatality	Availability of medical treatment including medivac Availability of high voltage PPE
Risk Rank: 15	Risk Category: Medium ALARP?: Yes
RECOMMENDATIONS:	
Consider providing high voltage PPE for this space. Also consider the placement of a sign detailing steps to take in an electrical shock situation. Consider the installation of an approved flammables storage locker for this space.	

COMPARTMENT NAME:	Laundry and escape passage				
LOCATION:	2 nd Deck Accommodations Centerline				
DIMENSIONS:	13m X 6.5m and 7m X 2.5m		MANNING:	Always	
POWER / FLUID / CONTROL LINES:					
120V Outlet and Lighting Cables Potable Water Lines Power cables for washers and dryers Power and control cables					
CONTROL SYSTEMS:					
Cold Water Loop Isolation Valves (DP-13, DP-14, & DP-15) Hot Water Loop Isolation Valves (DH-14, DH-15, & DH-16) Sprinkler Test/Drain Valve (2 nd Sld) Control for Exhaust Fan (EF-118)					
HVAC / DUCTING:					
HVAC Ventilation Ducting					
PASSIVE FIRE PROTECTION:					
Deck:	A-0	Deckhead:	A-0		
Forward Bulkhead:	B-0	Aft Bulkhead:	B-0		
Port Bulkhead:	B-0	Starboard Bulkhead:	B-0		
Comments / Recommendations					
FIRE/GAS DETECTION:					
	Space	Duct		Space	Duct
Constant Manning	<input checked="" type="checkbox"/>		Hydrocarbon Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>
Flame Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>	H ₂ S Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>
Heat Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>	Other: _____	<input type="checkbox"/>	<input type="checkbox"/>
Smoke Detector(s)	<input checked="" type="checkbox"/>	<input type="checkbox"/>			
Comments / Recommendations					
Smoke Detector #ASH-172415 Fire in Escape Passage can be detected by detectors in Rooms 236, 237, & 238					

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FIRE FIGHTING EQUIPMENT:

	Space	Adjacent		Space	Adjacent
Dry Powder Extinguisher(s)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	CO ₂ Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>
H ₂ O Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>	Foam Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>
Fixed H ₂ O (Deluge, Sprinklers, etc.)	<input checked="" type="checkbox"/>		Fire Water Hose(s)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Fixed Halon	<input type="checkbox"/>		Fixed CO ₂	<input type="checkbox"/>	
Other:	<input type="checkbox"/>	<input type="checkbox"/>			

Comments / Recommendations

Fire Stations #18 & 19 in passageway
Emergency Stop for washers and dryers in passageway

COMMUNICATIONS, ETC. :

Telephone	<input type="checkbox"/>	CCTV	<input type="checkbox"/>	PA Speaker	<input checked="" type="checkbox"/>
Fire Alarm Button	<input type="checkbox"/>	Bilge Alarm	<input type="checkbox"/>	Emergency Lighting	<input checked="" type="checkbox"/>
GA Alarm Button	<input type="checkbox"/>	General Alarm	<input checked="" type="checkbox"/>	Other:	<input type="checkbox"/>

Comments / Recommendations

ESCAPE ROUTES:

Primary: Exit forward through door into passageway then forward to Fwd. Lifeboat Deck
Alternate: Exit Port Aft through emergency escape into passageway

COMPARTMENT: Laundry and escape passage

FIRE:

Ignition Sources / Fuel	Preventions (Note EX equipment)
Electrical wiring/shorts Heat from dryers, lint Oily/greasy clothing	Preventive maintenance and inspections Lint filters cleaned 2-3 times per day Special care taken with oily/greasy clothing-(prewash)
Consequences	Mitigations
Possibility of damage to equipment/compartment Possibility of injury to personnel	Firefighting capabilities Availability of medical treatment Multiple dryers
Risk Rank: 9	Risk Category: Low
	ALARP?: Yes


EXPLOSION:

Ignition Sources / Fuel	Preventions (Note EX equipment)
Consequences	Mitigations
Risk Rank:	Risk Category:
	ALARP?: Yes / No

FLOOD:


Hazards	Preventions
	Drains.

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Consequences		Mitigations
Risk Rank:	Risk Category:	ALARP?: Yes / No
OTHER: Electrical shock		
Hazards		Preventions
Contact with live energy sources		PTW, energy isolation, PPE Preventive maintenance and inspections
Consequences		Mitigations
Possibility of injury to personnel Possibility of fatality		Availability of medical treatment including medivac
Risk Rank: 15	Risk Category: Medium	ALARP?: Yes
RECOMMENDATIONS:		

COMPARTMENT NAME: Machine Shop	
LOCATION: Second Deck, Port Side, Frame 9.2 to 13.2	
DIMENSIONS: 30.7' x 22.5' x 11.5'	MANNING: 1
POWER / FLUID / CONTROL LINES: 120v, 480v, diesel, rig air	
CONTROL SYSTEMS: None	
HVAC / DUCTING: Exhaust vent (1150cfm) routed from Rig Air Compressor Room with fusible linked fire damper and Supply vent (1175cfm) routed to Weld Shop (2937cfm), Client Stores (1469cfm), Electrical Shop (2480cfm) and Rig Air Compressor Room (2937cfm) with fusible linked fire damper.	
PASSIVE FIRE PROTECTION:	
Deck: C	Deckhead: C/A-0/A-60
Forward Bulkhead: C	Aft Bulkhead: A-0
Port Bulkhead: C	Starboard Bulkhead: A-0
Comments / Recommendations Aft bulkhead does not meet the requirements of A-0 class. There are open cableways, openings around doorframe and monorail penetration does not seal. Should be re-classed C. Deckhead is rated A-60 under Paint Locker, A-0 under Auxiliary Generator and C for the rest.	
FIRE/GAS DETECTION:	
Constant Manning	Space <input type="checkbox"/> Duct <input type="checkbox"/>
Flame Detector(s)	Hydrocarbon Detector(s) <input type="checkbox"/> <input type="checkbox"/>
Heat Detector(s)	H ₂ S Detector(s) <input type="checkbox"/> <input type="checkbox"/>
	Other: <input type="checkbox"/> <input type="checkbox"/>
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Smoke Detector(s)	<input checked="" type="checkbox"/>	<input type="checkbox"/>			
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Comments / Recommendations

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FIRE FIGHTING EQUIPMENT:

	Space	Adjacent		Space	Adjacent
Dry Powder Extinguisher(s)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	CO ₂ Extinguisher(s)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
H ₂ O Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>	Foam Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>
Fixed H ₂ O (Deluge, Sprinklers, etc.)	<input type="checkbox"/>		Fire Water Hose(s)	<input type="checkbox"/>	<input type="checkbox"/>
Fixed Halon	<input type="checkbox"/>		Fixed CO ₂	<input type="checkbox"/>	
Other: Fusible link in exhaust vent	<input checked="" type="checkbox"/>	<input type="checkbox"/>			

Comments / Recommendations

Dry powder extinguisher is in Passageway outside Mechanic Shop/Port Auxiliary Machinery Room. CO₂ extinguisher is in #1 Engine Room outside Welding Shop.

COMMUNICATIONS, ETC. :

Telephone	<input checked="" type="checkbox"/>	CCTV	<input type="checkbox"/>	PA Speaker	<input checked="" type="checkbox"/>
Fire Alarm Button	<input type="checkbox"/>	Bilge Alarm	<input type="checkbox"/>	Emergency Lighting	<input checked="" type="checkbox"/>
GA Alarm Button	<input type="checkbox"/>	General Alarm	<input type="checkbox"/>	Other:	<input type="checkbox"/>

Comments / Recommendations

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ESCAPE ROUTES:

Primary: stbd into Port Auxiliary Machinery Room, fwd into Passageway, up stairs to main deck.
 Alternate: fwd into Mechanic Shop, stbd into Passageway, up stairs to main deck.
 Alternate: aft into Welding Shop, aft into #1 Engine Room, aft into Vestibule, up stairs to main deck.

COMPARTMENT: Machine Shop

FIRE:


Ignition Sources / Fuel	Preventions (Note EX equipment)
Electrical wiring/shorts, Sparks from grinding /machining. Flammable aerosols diesel Spontaneous combustion from oily rags/cuttings in trash	Preventive maintenance/inspections Housekeeping. Flammable liquid lines are seal welded at joints. Proper storage of flammables Proper disposal of oily rags/oily cuttings
Consequences	Mitigations
Possibility of damage to equipment/compartament Possibility of injury to personnel	Firefighting capabilities Availability of medical treatment

Risk Rank: 9	Risk Category: Low	ALARP?: Yes
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EXPLOSION:

Ignition Sources / Fuel	Preventions (Note EX equipment)
Consequences	Mitigations

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Risk Rank:	Risk Category:	ALARP?: Yes / No	
FLOOD:			
Hazards		Preventions	
Consequences		Mitigations	
Risk Rank:	Risk Category:	ALARP?: Yes / No	
OTHER: Electrical shock			
Hazards		Preventions	
Contact with live energy sources		PTW, energy isolation, PPE Preventive maintenance and inspections	
Consequences		Mitigations	
Possibility of injury to personnel Possibility of fatality		Availability of medical treatment including medivac	
Risk Rank: 15	Risk Category: Medium	ALARP?: Yes	
RECOMMENDATIONS: Consider the installation of an approved flammables storage locker for this space. Also consider the provision of an oily waste disposal container for this space.			
COMPARTMENT NAME: Main Deck, Port Aft			
LOCATION: Main Deck, Port Aft			
DIMENSIONS: 40.75m x 30.5m		MANNING: As required	
POWER / FLUID / CONTROL LINES:			
120v, rig air, high pressure wash down, mud lines, fire water Drawworks brake oil & gear oil storage, Oxy-acetylene bottle storage			
CONTROL SYSTEMS:			
Well test equip. junction box E-stop for gantry crane Pressure washer Solvent recovery system Switches for 480V receptacles		Auto Tel Conn box F&G Junction box Shoreline conn. Box Radio Comm Junc. Box Sea water Junc. box	
HVAC / DUCTING:			
Vents for the liquid storage tanks (fuel, oil, mud, ballast) Supply and Exhaust for Machinery spaces			
PASSIVE FIRE PROTECTION:			
Deck: A-60		Deckhead: N/A	
Forward Bulkhead: N/A		Aft Bulkhead: N/A	
Port Bulkhead: N/A		Starboard: N/A	
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Comments / Recommendations	Bulkhead:
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FIRE/GAS DETECTION:					
	Space	Duct		Space	Duct
Constant Manning	<input type="checkbox"/>		Hydrocarbon Detector(s)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Flame Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>	H ₂ S Detector(s)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Heat Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>	Other: _____	<input type="checkbox"/>	<input type="checkbox"/>
Smoke Detector(s)	<input checked="" type="checkbox"/>	<input type="checkbox"/>			
Comments / Recommendations					

FIRE FIGHTING EQUIPMENT:					
	Space	Adjacent		Space	Adjacent
Dry Powder Extinguisher(s)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	CO ₂ Extinguisher(s)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
H ₂ O Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>	Foam Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>
Fixed H ₂ O (Deluge, Sprinklers, etc.)	<input type="checkbox"/>		Fire Water Hose(s)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Fixed Halon	<input type="checkbox"/>		Fixed CO ₂	<input type="checkbox"/>	
Other: _____	<input type="checkbox"/>	<input type="checkbox"/>			
Comments / Recommendations					

COMMUNICATIONS, ETC. :					
Telephone	<input checked="" type="checkbox"/>	CCTV	<input type="checkbox"/>	PA Speaker	<input checked="" type="checkbox"/>
Fire Alarm Button	<input checked="" type="checkbox"/>	Bilge Alarm	<input type="checkbox"/>	Emergency Lighting	<input checked="" type="checkbox"/>
GA Alarm Button	<input checked="" type="checkbox"/>	General Alarm	<input checked="" type="checkbox"/>	Other: _____	<input type="checkbox"/>
Comments / Recommendations					
Nearest Phones – CO ₂ Room, Mud Lab, Shaker house, Stbd crane pedestal.					

ESCAPE ROUTES:
Perimeter Walkway leading forward and aft.

COMPARTMENT: Main Deck, Port Aft		
FIRE:		
Ignition Sources / Fuel	Preventions (Note EX equipment)	
Possibility of fire from any temporary third party or rental equipment fitted with electric power /diesel fuel systems. Electric wiring/shorts/fuel leaks	Policy for inspection /installation of client and subcontractor equipment	
Oxygen/gas cylinders, oil tote tanks	Housekeeping	
	ESD's required on same equipment	
Consequences	Mitigations	
Damage to specific unit	Firefighting capabilities	
Possibility of injury to personnel	Availability of medical treatment including medivac	
Risk Rank: 9	Risk Category: Low	ALARP?: Yes

EXPLOSION:	
Ignition Sources / Fuel	Preventions (Note EX equipment)

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Consequences		Mitigations
Risk Rank:	Risk Category:	ALARP?: Yes / No
FLOOD:		
Hazards		Preventions
		Drains.
Consequences		Mitigations
Risk Rank:	Risk Category:	ALARP?: Yes / No
OTHER:		
Hazards		Preventions
Consequences		Mitigations
Risk Rank:	Risk Category:	ALARP?: Yes / No
RECOMMENDATIONS:		

COMPARTMENT NAME:	Main Deck, Port Fwd		
LOCATION:	Main Deck, Port Fwd		
DIMENSIONS:	40.75m x 30.5m	MANNING:	As required
POWER / FLUID / CONTROL LINES:			
Loading station with piping for fuel, base oil, waste oil and synthetic base mud. Storage tanks for BOP fluids aft. Helifuel tanks and piping port side. Rig air, drill water, high pressure water. Welding outlets, 480V and 120V outlets. Various equipment and tote tanks in different areas at any given time. Occasional storage of nitrogen bottles.			

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CONTROL SYSTEMS:

Controls for Helifuel and helifoam, moonpool and shakerhouse deluge, high pressure wash pump and waste oil pump.

HVAC / DUCTING:

The space is located outside, therefore we must be conscious of our heading and wind relation if a fire should arise.

PASSIVE FIRE PROTECTION:

Deck: A-60

Forward Bulkhead:

Port Bulkhead:

Deckhead:

Aft Bulkhead:

Starboard

Bulkhead:

Comments / Recommendations

FIRE/GAS DETECTION:

	Space	Duct		Space	Duct
Constant Manning	<input checked="" type="checkbox"/>		Hydrocarbon Detector(s)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Flame Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>	H ₂ S Detector(s)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Heat Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>	Other: _____	<input type="checkbox"/>	<input type="checkbox"/>
Smoke Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>			

Comments / Recommendations

FIRE FIGHTING EQUIPMENT:

	Space	Adjacent		Space	Adjacent
Dry Powder Extinguisher(s)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	CO ₂ Extinguisher(s)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
H ₂ O Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>	Foam Extinguisher(s)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Fixed H ₂ O (Deluge, Sprinklers, etc.)	<input type="checkbox"/>		Fire Water Hose(s)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Fixed Halon	<input type="checkbox"/>		Fixed CO ₂	<input type="checkbox"/>	
Other: Fire Team and HLO lockers	<input checked="" type="checkbox"/>	<input type="checkbox"/>			

Comments / Recommendations

Fire stations #4, 6, 7 & 8.

COMMUNICATIONS, ETC. :

Telephone	<input checked="" type="checkbox"/>	CCTV	<input checked="" type="checkbox"/>	PA Speaker	<input checked="" type="checkbox"/>
Fire Alarm Button	<input type="checkbox"/>	Bilge Alarm	<input type="checkbox"/>	Emergency Lighting	<input checked="" type="checkbox"/>
GA Alarm Button	<input checked="" type="checkbox"/>	General Alarm	<input type="checkbox"/>	Other:	<input type="checkbox"/>


Comments / Recommendations

Emergency Strobe lights on port fwd elevator trunk

ESCAPE ROUTES:

Take ladder way to fwd lifeboat deck, or go aft to aft lifeboat deck

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COMPARTMENT: Main Deck, Port Fwd		
FIRE:		
Ignition Sources / Fuel	Preventions (Note EX equipment)	
Possibility of fire from any temporary third party or rental equipment fitted with electric power /diesel fuel systems. Electric wiring/shorts/fuel leaks Oxygen/gas cylinders, oil tote tanks	Policy for inspection /installation of client and subcontractor equipment Housekeeping ESD's required on same equipment	
Consequences	Mitigations	
Damage to specific unit Possibility of injury to personnel	Firefighting capabilities Availability of medical treatment including medivac	
Risk Rank: 9	Risk Category: Low	ALARP?: Yes
EXPLOSION:		
Ignition Sources / Fuel	Preventions (Note EX equipment)	
Consequences	Mitigations	
Risk Rank:	Risk Category:	ALARP?: Yes / No
FLOOD:		
Hazards	Preventions	
	Drains.	
Consequences	Mitigations	
Risk Rank:	Risk Category:	ALARP?: Yes / No
OTHER: Pressure		
Hazards	Preventions	
Sudden release of stored pressure from APV bottles, piping	Preventive maintenance and inspections Care in handling equipment/lifts around APV's PPE, PTW, energy isolation, relief valves on equip.	
Consequences	Mitigations	
Possibility of injury to personnel Possibility of fatality	Availability of medical treatment including medivac	
Risk Rank: 15	Risk Category: Medium	ALARP?: Yes
RECOMMENDATIONS:		

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COMPARTMENT NAME: Main Deck, Stbd Aft					
LOCATION: Main Deck, Stbd Aft					
DIMENSIONS: 40.75m x 30.5m	MANNING: As required				
POWER / FLUID / CONTROL LINES: 120v, 480v, rig air, high pressure washdown, mud vac, fire water					
CONTROL SYSTEMS: Controls for mud vac E-stop for gantry crane Pressure washer Solvent recovery system Switches for 480V receptacles					
HVAC / DUCTING: Vents for the liquid storage tanks (fuel, oil, mud, ballast) Supply and Exhaust for Machinery spaces					
PASSIVE FIRE PROTECTION: Deck: A-60 Forward Bulkhead: N/A Port Bulkhead: N/A Deckhead: N/A Aft Bulkhead: N/A Starboard Bulkhead: N/A					
Comments / Recommendations Area is also used for temporary storage of liquid totes, which may or may not contain flammable liquids S/A corner of space contains the Paint locker and a dedicated area for storage of hazardous materials.					
FIRE/GAS DETECTION:					
	Space	Duct		Space	Duct
Constant Manning	<input type="checkbox"/>		Hydrocarbon Detector(s)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Flame Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>	H ₂ S Detector(s)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Heat Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>	Other: _____	<input type="checkbox"/>	<input type="checkbox"/>
Smoke Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>			
Comments / Recommendations					
FIRE FIGHTING EQUIPMENT:					
	Space	Adjacent		Space	Adjacent
Dry Powder Extinguisher(s)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	CO ₂ Extinguisher(s)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
H ₂ O Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>	Foam Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>
Fixed H ₂ O (Deluge, Sprinklers, etc.)	<input type="checkbox"/>		Fire Water Hose(s)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Fixed Halon	<input type="checkbox"/>		Fixed CO ₂	<input type="checkbox"/>	
Other: _____	<input type="checkbox"/>	<input type="checkbox"/>			
Comments / Recommendations					

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COMMUNICATIONS, ETC. :		
Telephone <input type="checkbox"/>	CCTV <input type="checkbox"/>	PA Speaker <input checked="" type="checkbox"/>
Fire Alarm Button <input checked="" type="checkbox"/>	Bilge Alarm <input type="checkbox"/>	Emergency Lighting <input checked="" type="checkbox"/>
GA Alarm Button <input checked="" type="checkbox"/>	General Alarm <input checked="" type="checkbox"/>	Other: <input type="checkbox"/>
Comments / Recommendations		
Nearest Phones – CO2 Room, Mud Lab, Shaker house, Stbd crane pedestal.		
ESCAPE ROUTES:		
Perimeter Walkway leading forward and aft.		
COMPARTMENT: Main Deck, Stbd Aft		
FIRE:		
Ignition Sources / Fuel		Preventions (Note EX equipment)
Possibility of fire from any temporary third party or rental equipment fitted with electric power /diesel fuel systems. Electric wiring/shorts/fuel leaks Oxygen/gas cylinders, oil tote tanks		Policy for inspection /installation of client and subcontractor equipment Housekeeping ESD's required on same equipment
Consequences		Mitigations
Damage to specific unit Possibility of injury to personnel		Firefighting capabilities Availability of medical treatment including medivac
Risk Rank: 9	Risk Category: Low	ALARP?: Yes
EXPLOSION:		
Ignition Sources / Fuel		Preventions (Note EX equipment)
Consequences		Mitigations
Risk Rank:	Risk Category:	ALARP?: Yes / No
FLOOD:		
Hazards		Preventions
		Drains.
Consequences		Mitigations
Risk Rank:	Risk Category:	ALARP?: Yes / No
OTHER:		
Hazards		Preventions

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Consequences		Mitigations	
Risk Rank:	Risk Category:	ALARP?: Yes / No	
RECOMMENDATIONS:			

COMPARTMENT NAME:		Main Deck, Stbd Fwd	
LOCATION:		Main Deck, Stbd Fwd	
DIMENSIONS: 40.75m x 30.5m		MANNING: As required	
POWER / FLUID / CONTROL LINES:			
120v, Loading station with piping for fuel, base oil, and synthetic base mud. And Waste oil tanks on aft bulk head, Oil tote tanks stbd fwd, and Pressure tanks for BOP Mid ships			
CONTROL SYSTEMS:			
Various equipment and tote tanks in different areas at any given time. Trash and recycle is also kept fwd near ROV unit			
HVAC / DUCTING:			
The space is located outside, therefor we must be conscious of our heading and wind relation if a fire should arise.			
PASSIVE FIRE PROTECTION:			
Deck: A-60		Deckhead:	
Forward Bulkhead:		Aft Bulkhead:	
Port Bulkhead:		Starboard Bulkhead:	
Comments / Recommendations			
Fire stations #8 and #9			
FIRE/GAS DETECTION:			
	Space	Duct	
Constant Manning	<input type="checkbox"/>		Hydrocarbon Detector(s)
Flame Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>	H ₂ S Detector(s)
Heat Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>	Other: _____
Smoke Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>	
			Space
			<input type="checkbox"/>
			<input checked="" type="checkbox"/>
			<input type="checkbox"/>
			<input type="checkbox"/>
Comments / Recommendations			
FIRE FIGHTING EQUIPMENT:			
	Space	Adjacent	
Dry Powder Extinguisher(s)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	CO ₂ Extinguisher(s)
			Space
			<input checked="" type="checkbox"/>
			<input type="checkbox"/>
			<input type="checkbox"/>
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H ₂ O Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>	Foam Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>
Fixed H ₂ O (Deluge, Sprinklers, etc.)	<input type="checkbox"/>		Fire Water Hose(s)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Fixed Halon	<input type="checkbox"/>		Fixed CO ₂	<input type="checkbox"/>	
Other:	<input type="checkbox"/>	<input type="checkbox"/>			
Comments / Recommendations					
COMMUNICATIONS, ETC. :					
Telephone	<input checked="" type="checkbox"/>	CCTV	<input checked="" type="checkbox"/>	PA Speaker	<input checked="" type="checkbox"/>
Fire Alarm Button	<input type="checkbox"/>	Bilge Alarm	<input type="checkbox"/>	Emergency Lighting	<input type="checkbox"/>
GA Alarm Button	<input checked="" type="checkbox"/>	General Alarm	<input type="checkbox"/>	Other:	<input type="checkbox"/>
Comments / Recommendations					
Emergency Strobe lights on stbd fwd elevator					
ESCAPE ROUTES:					
Take ladder way to fwd lifeboat deck, or go aft to aft lifeboat deck					
COMPARTMENT: Main Deck, Stbd Fwd					
FIRE:					
Ignition Sources / Fuel			Preventions (Note EX equipment)		
Possibility of fire from any temporary third party or rental equipment fitted with electric power /diesel fuel systems. Electric wiring/shorts/fuel leaks Oxygen/gas cylinders, oil tote tanks			Policy for inspection /installation of client and subcontractor equipment Housekeeping ESD's required on same equipment		
Consequences			Mitigations		
Damage to specific unit Possibility of injury to personnel			Firefighting capabilities Availability of medical treatment including medivac		
Risk Rank: 9	Risk Category: Low		ALARP?: Yes		
EXPLOSION:					
Ignition Sources / Fuel			Preventions (Note EX equipment)		
Consequences			Mitigations		
Risk Rank:	Risk Category:		ALARP?: Yes / No		
FLOOD:					
Hazards			Preventions		
			Drains.		
Consequences			Mitigations		

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Risk Rank:		Risk Category:		ALARP?: Yes / No	
OTHER:					
Hazards			Preventions		
Sudden release of stored pressure from APV bottles, piping			Preventive maintenance and inspections Care in handling equipment/lifts around APV's PPE, PTW, energy isolation, relief valves on equip.		
Consequences			Mitigations		
Possibility of injury to personnel Possibility of fatality			Availability of medical treatment including medivac		
Risk Rank: 15		Risk Category: Medium		ALARP?: Yes	
RECOMMENDATIONS:					

COMPARTMENT NAME:		MCC Room, port			
LOCATION:		3 rd deck, aft of mud pump room, inboard of engine room #3			
DIMENSIONS:		Approx. 12m x 8m		MANNING: 0	
POWER / FLUID / CONTROL LINES:					
120v, 208v, 480v, fire water Breaker units					
CONTROL SYSTEMS:					
MCC1 P/A drilling, MCC6 P/A Ventilation, MCC12 P/A equipment, Rig air compressor #1, main UPS distribution board, Lube oil service #1, Fuel oil service #1. CO2 control for 600V switchgear room.					
HVAC / DUCTING:					
Fire damper and ventilation ducting. FD 84 A/C return. Fire zone 27					
PASSIVE FIRE PROTECTION:					
Deck:		A-0		Deckhead:	
Forward Bulkhead:		A-60		Aft Bulkhead:	
Port Bulkhead:		A-0		Starboard	
				Bulkhead:	
				A-60	
Comments / Recommendations					
Boundaries: Aft-Transformer room, Fwd- Mud pump room, port- Engine room #3, stbd- MCC room					
FIRE/GAS DETECTION:					
	Space	Duct		Space	Duct
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Constant Manning	<input type="checkbox"/>		Hydrocarbon Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>
Flame Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>	H ₂ S Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>
Heat Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>	Other: _____	<input type="checkbox"/>	<input type="checkbox"/>
Smoke Detector(s)	<input checked="" type="checkbox"/>	<input type="checkbox"/>			

Comments / Recommendations

ASH 172906

ASH 172907

FIRE FIGHTING EQUIPMENT:

	Space	Adjacent		Space	Adjacent
Dry Powder Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>	CO ₂ Extinguisher(s)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
H ₂ O Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>	Foam Extinguisher(s)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Fixed H ₂ O (Deluge, Sprinklers, etc.)	<input type="checkbox"/>		Fire Water Hose(s)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Fixed Halon	<input type="checkbox"/>		Fixed CO ₂	<input checked="" type="checkbox"/>	
Other: _____	<input type="checkbox"/>	<input type="checkbox"/>			

Comments / Recommendations
COMMUNICATIONS, ETC. :

Telephone	<input checked="" type="checkbox"/>	CCTV	<input type="checkbox"/>	PA Speaker	<input checked="" type="checkbox"/>
Fire Alarm Button	<input checked="" type="checkbox"/>	Bilge Alarm	<input type="checkbox"/>	Emergency Lighting	<input checked="" type="checkbox"/>
GA Alarm Button	<input type="checkbox"/>	General Alarm	<input checked="" type="checkbox"/>	Other: _____	<input type="checkbox"/>

Comments / Recommendations
ESCAPE ROUTES:

 Go out to the stbd door, up stairs to 2nd deck, Exit out through ECR to aft boat deck.


COMPARTMENT: MCC Room, Port
FIRE:

Ignition Sources / Fuel	Preventions (Note EX equipment)
Electric wiring/ shorts	Preventive maintenance and inspections
Consequences	Mitigations
Possibility of damage to equipment/compartment Possibility of injury to personnel	Firefighting capabilities Availability of medical treatment including medivac
Risk Rank: 9	Risk Category: Low ALARP?: Yes

EXPLOSION:

Ignition Sources / Fuel	Preventions (Note EX equipment)
Consequences	Mitigations


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Risk Rank:	Risk Category:	ALARP?: Yes / No
FLOOD:		
Hazards	Preventions	
	Drains.	
Consequences	Mitigations	
Risk Rank:	Risk Category:	ALARP?: Yes / No
OTHER: Electric shock		
Hazards	Preventions	
Contact with live energy sources	Preventive maintenance and inspections PPE, PTW, energy isolation	
Consequences	Mitigations	
Possibility of injury to personnel Possibility of fatality	Availability of high voltage PPE Availability of medical treatment including medivac	
Risk Rank: 15	Risk Category: Medium	ALARP?: Yes
RECOMMENDATIONS:		
Consider providing high voltage PPE for this space. Also consider placement of a sign detailing the steps to take in electrical shock situations.		

COMPARTMENT NAME:	Mechanic's shop
LOCATION:	2 nd Deck Port amidships
DIMENSIONS: 6.02m x 5.02m	MANNING: Intermittent
POWER / FLUID / CONTROL LINES:	
120V Outlet and Lighting Cables Bulk lines, rig air, base oil	
CONTROL SYSTEMS:	
ASH 172501, Zone #15 air and fan & PAC stop FP clse in zones 15/19	
HVAC / DUCTING:	
Fire dampers 30, 31, 75, 76	

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PASSIVE FIRE PROTECTION:					
Deck:	A-0	Deckhead:	A-0		
Forward Bulkhead:	A-60	Aft Bulkhead:	A-0		
Port Bulkhead:	A-0	Starboard Bulkhead:	A-0		
Comments / Recommendations					
FIRE/GAS DETECTION:					
	Space	Duct		Space	Duct
Constant Manning	<input type="checkbox"/>		Hydrocarbon Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>
Flame Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>	H ₂ S Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>
Heat Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>	Other: _____	<input type="checkbox"/>	<input type="checkbox"/>
Smoke Detector(s)	<input checked="" type="checkbox"/>	<input type="checkbox"/>			
Comments / Recommendations					
Smoke Detector #ASH-172415					
Fire in Escape Passage can be detected by detectors in Rooms 236, 237, & 238					
FIRE FIGHTING EQUIPMENT:					
	Space	Adjacent		Space	Adjacent
Dry Powder Extinguisher(s)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	CO ₂ Extinguisher(s)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
H ₂ O Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>	Foam Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>
Fixed H ₂ O (Deluge, Sprinklers, etc.)	<input type="checkbox"/>		Fire Water Hose(s)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Fixed Halon	<input type="checkbox"/>		Fixed CO ₂	<input type="checkbox"/>	
Other: _____	<input type="checkbox"/>	<input type="checkbox"/>			
Comments / Recommendations					
COMMUNICATIONS, ETC. :					
Telephone	<input checked="" type="checkbox"/>	CCTV	<input type="checkbox"/>	PA Speaker	<input checked="" type="checkbox"/>
Fire Alarm Button	<input type="checkbox"/>	Bilge Alarm	<input type="checkbox"/>	Emergency Lighting	<input checked="" type="checkbox"/>
GA Alarm Button	<input type="checkbox"/>	General Alarm	<input type="checkbox"/>	Other: _____	<input type="checkbox"/>
Comments / Recommendations					
ESCAPE ROUTES:					
Door to passageway and up stairs to main deck or forward through accommodations to lifeboat deck. Also through machine shop to aft stairwell					

COMPARTMENT: Mechanic's Shop	
FIRE:	
Ignition Sources / Fuel	Preventions (Note EX equipment)
Electric wiring/shorts Class A material	Preventive maintenance and inspections Housekeeping
Consequences	Mitigations
Possibility of damage to equipment/compartment Possibility of injury to personnel	Firefighting capabilities Availability of medical treatment including medivac

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Risk Rank: 9	Risk Category: Low	ALARP?: Yes
EXPLOSION:		
Ignition Sources / Fuel		Preventions (Note EX equipment)
Consequences		Mitigations
Risk Rank:	Risk Category:	ALARP?: Yes / No
FLOOD:		
Hazards		Preventions
Consequences		Mitigations
Risk Rank:	Risk Category:	ALARP?: Yes / No
OTHER:		
Hazards		Preventions
Consequences		Mitigations
Risk Rank:	Risk Category:	ALARP?: Yes / No
RECOMMENDATIONS:		

COMPARTMENT NAME:	Mess Room
LOCATION:	2 nd deck, accommodation block, stbd of centerline.

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DIMENSIONS: Approx. 12.5m x 8m	MANNING: 0-100
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POWER / FLUID / CONTROL LINES:

Numerous 120V outlets, Potable water.

CONTROL SYSTEMS:

Lights, beverage dispensers, food warmers.

HVAC / DUCTING:

Fire zone F-10,

PASSIVE FIRE PROTECTION:

Deck:	A	Deckhead:	A
Forward Bulkhead:	A-0	Aft Bulkhead:	B-30
Port Bulkhead:	B-30	Starboard Bulkhead:	A-0

Comments / Recommendations

FIRE/GAS DETECTION:

	Space	Duct		Space	Duct
Constant Manning	<input type="checkbox"/>		Hydrocarbon Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>
Flame Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>	H ₂ S Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>
Heat Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>	Other: _____	<input type="checkbox"/>	<input type="checkbox"/>
Smoke Detector(s)	<input checked="" type="checkbox"/>	<input type="checkbox"/>			

Comments / Recommendations

FIRE FIGHTING EQUIPMENT:

	Space	Adjacent		Space	Adjacent
Dry Powder Extinguisher(s)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	CO ₂ Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>
H ₂ O Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>	Foam Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>
Fixed H ₂ O (Deluge, Sprinklers, etc.)	<input checked="" type="checkbox"/>		Fire Water Hose(s)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Fixed Halon	<input type="checkbox"/>		Fixed CO ₂	<input type="checkbox"/>	
Other: Fire Axe	<input type="checkbox"/>	<input checked="" type="checkbox"/>			

Comments / Recommendations

Fire and Safety Control plan posted in space.

COMMUNICATIONS, ETC. :

Telephone	<input checked="" type="checkbox"/>	CCTV	<input type="checkbox"/>	PA Speaker	<input checked="" type="checkbox"/>
Fire Alarm Button	<input type="checkbox"/>	Bilge Alarm	<input type="checkbox"/>	Emergency Lighting	<input checked="" type="checkbox"/>
GA Alarm Button	<input type="checkbox"/>	General Alarm	<input type="checkbox"/>	Other: Alarm light tree.	<input checked="" type="checkbox"/>

Comments / Recommendations

ESCAPE ROUTES:

Out portside door and then forward and out door to Lifeboat deck.

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COMPARTMENT: Mess Room		
FIRE:		
Ignition Sources / Fuel		Preventions (Note EX equipment)
Electric wiring/shorts Class A material		Preventive maintenance and inspections Housekeeping
Consequences		Mitigations
Possibility of damage to equipment/compartment Possibility of injury to personnel		Firefighting capabilities Availability of medical treatment including medivac
Risk Rank: 9	Risk Category: Low	ALARP?: Yes
EXPLOSION:		
Ignition Sources / Fuel		Preventions (Note EX equipment)
Consequences		Mitigations
Risk Rank:	Risk Category:	ALARP?: Yes / No
FLOOD:		
Hazards		Preventions
		Drains.
Consequences		Mitigations
Risk Rank:	Risk Category:	ALARP?: Yes / No
OTHER: Electric Shock		
Hazards		Preventions
Contact with live nergy sources		PTW, energy isolation, PPE
Consequences		Mitigations
Possibility of injury to personnel Possibility of fatality		Availability of medical treatment including medivac
Risk Rank: 15	Risk Category: Medium	ALARP?: Yes
RECOMMENDATIONS:		

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COMPARTMENT NAME: Moonpool																																		
LOCATION: Midships, frames 11u to 19 u																																		
DIMENSIONS: 65ft x 115ft	MANNING: As required																																	
POWER / FLUID / CONTROL LINES: 120v, hydraulic lines, fire water, hp control lines choke and kill hoses, rigid conduit, mud boost line, tensioner hoses																																		
CONTROL SYSTEMS: Tensioner control panel BOP capture system panel, tensioner air/oil skid																																		
HVAC / DUCTING: None																																		
PASSIVE FIRE PROTECTION:																																		
Deck: C	Deckhead: C																																	
Forward Bulkhead: A-60	Aft Bulkhead: C																																	
Port Bulkhead: A-0	Starboard Bulkhead: A-0																																	
Comments / Recommendations																																		
FIRE/GAS DETECTION:																																		
<table border="1" style="width: 100%;"> <tr> <th></th> <th>Space</th> <th>Duct</th> </tr> <tr> <td>Constant Manning</td> <td><input type="checkbox"/></td> <td></td> </tr> <tr> <td>Flame Detector(s)</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>Heat Detector(s)</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>Smoke Detector(s)</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> </table>		Space	Duct	Constant Manning	<input type="checkbox"/>		Flame Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>	Heat Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>	Smoke Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>	<table border="1" style="width: 100%;"> <tr> <th></th> <th>Space</th> <th>Duct</th> </tr> <tr> <td>Hydrocarbon Detector(s)</td> <td><input checked="" type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>H₂S Detector(s)</td> <td><input checked="" type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>Other: _____</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> </table>		Space	Duct	Hydrocarbon Detector(s)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	H ₂ S Detector(s)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Other: _____	<input type="checkbox"/>	<input type="checkbox"/>						
	Space	Duct																																
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Comments / Recommendations																																		
FIRE FIGHTING EQUIPMENT:																																		
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	Space	Adjacent																																
Dry Powder Extinguisher(s)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>																																
H ₂ O Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>																																
Fixed H ₂ O (Deluge, Sprinklers, etc.)	<input type="checkbox"/>																																	
Fixed Halon	<input type="checkbox"/>																																	
Other: _____	<input type="checkbox"/>	<input type="checkbox"/>																																
	Space	Adjacent																																
CO ₂ Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>																																
Foam Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>																																
Fire Water Hose(s)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>																																
Fixed CO ₂	<input type="checkbox"/>																																	

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MAJOR ACCIDENT HAZARD
RISK ASSESSMENT
DEEPWATER HORIZON

APPENDIX III

Comments / Recommendations

COMMUNICATIONS, ETC. :

Telephone	<input type="checkbox"/>	CCTV	<input type="checkbox"/>	PA Speaker	<input type="checkbox"/>
Fire Alarm Button	<input type="checkbox"/>	Bilge Alarm	<input type="checkbox"/>	Emergency Lighting	<input type="checkbox"/>
GA Alarm Button	<input type="checkbox"/>	General Alarm	<input type="checkbox"/>	Other: _____	<input type="checkbox"/>

Comments / Recommendations

ESCAPE ROUTES:

Forward to stairs, aft to ladder. One door stbd to Compressor Room, two doors port to HPU Room

COMPARTMENT: Moon Pool

FIRE:

Ignition Sources / Fuel

Electric wiring/shorts
Hydraulic fluid

Preventions (Note EX equipment)

Preventive maintenance and inspections
Housekeeping
Eex equipment
ESD's

Consequences

Damage to equipment/compartiment
Could impact BOP control

Mitigations

Fire fighting capabilities
Availability of medical treatment including medivac
Alternate control of BOP's (ROV intervention)

Risk Rank: 16

Risk Category: Medium

ALARP?: Yes

EXPLOSION:

Ignition Sources / Fuel

Electric wiring/shorts
Metal to metal contact (sparks)
Gas from well

Preventions (Note EX equipment)

Preventive maintenance and inspections
Eex equipment
Well control procedures - gas handling

Consequences

Possibility of damage to equipment/compartiment
could impact well control

Mitigations

Fire fighting capabilities
Availability of medical treatment including medivac
Alternate control of BOP's (ROV intervention)

Risk Rank: 16

Risk Category: Medium

ALARP?: Yes

FLOOD:

Hazards

N/A

Preventions

Drains.

Consequences

Mitigations

Risk Rank:

Risk Category:

ALARP?: Yes / No

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OTHER:		
Hazards		Preventions
Consequences		Mitigations
Risk Rank:	Risk Category:	ALARP?: Yes / No
RECOMMENDATIONS:		
Maintain all alarm detection + shut down systems.		

COMPARTMENT NAME: Mud Mixing Room					
LOCATION: 2 nd deck, aft section of sack store					
DIMENSIONS: Approx. 11m x 12m x 3.5m high	MANNING: 0-2				
POWER / FLUID / CONTROL LINES:					
120v, 480v, fire water, lp/hp mud Brine, base oil, drill water, dry bulk High pressure wash down					
CONTROL SYSTEMS:					
SVC OS-8 (can command bulk, drilling and common) Pressure washer controls Lighting panel LP-041 Emergency lighting panel EP-080					
HVAC / DUCTING:					
Exhaust FD-43, Supply is from sack store FD-40. Fire zone 16.					
PASSIVE FIRE PROTECTION:					
Deck: A-0	Deckhead: A-0				
Forward Bulkhead: Open to sack store	Aft Bulkhead: A-0				
Port Bulkhead: A-0	Starboard Bulkhead: A-0				
Comments / Recommendations					
FIRE/GAS DETECTION:					
Constant Manning	Space	Duct	Hydrocarbon Detector(s)	Space	Duct
Flame Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>	H ₂ S Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>
Heat Detector(s)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Other: _____	<input type="checkbox"/>	<input type="checkbox"/>
Smoke Detector(s)	<input checked="" type="checkbox"/>	<input type="checkbox"/>			
Comments / Recommendations					

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APPENDIX III

FIRE FIGHTING EQUIPMENT:

	Space	Adjacent		Space	Adjacent
Dry Powder Extinguisher(s)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	CO ₂ Extinguisher(s)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
H ₂ O Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>	Foam Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>
Fixed H ₂ O (Deluge, Sprinklers, etc.)	<input type="checkbox"/>		Fire Water Hose(s)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Fixed Halon	<input type="checkbox"/>		Fixed CO ₂	<input type="checkbox"/>	
Other: Fire Axe	<input checked="" type="checkbox"/>	<input type="checkbox"/>			

Comments / Recommendations

COMMUNICATIONS, ETC. :

Telephone	<input checked="" type="checkbox"/>	CCTV	<input type="checkbox"/>	PA Speaker	<input checked="" type="checkbox"/>
Fire Alarm Button	<input checked="" type="checkbox"/>	Bilge Alarm	<input type="checkbox"/>	Emergency Lighting	<input checked="" type="checkbox"/>
GA Alarm Button	<input type="checkbox"/>	General Alarm	<input checked="" type="checkbox"/>	Other: Drilling Talk Back	<input checked="" type="checkbox"/>

Comments / Recommendations

ESCAPE ROUTES:

Primary – P/F stair to riser deck

Secondary – S/A door to #6 E/R 2nd deck, aft to passageway door, up stairs to aft main deck.

COMPARTMENT: Mud mixing Room

FIRE:

Ignition Sources / Fuel	Preventions (Note EX equipment)
Electric wiring/shorts	Preventive maintenance and inspections
Consequences	Mitigations
Damage to equipment/compartament Possibility of injury to personnel	Firefighting capabilities Availability of medical treatment including medivac
Risk Rank: 15	Risk Category: Medium
	ALARP?: Yes


EXPLOSION:

Ignition Sources / Fuel	Preventions (Note EX equipment)
Consequences	Mitigations
Risk Rank:	Risk Category:
	ALARP?: Yes / No

FLOOD:

Hazards	Preventions
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		Drains.
Consequences		Mitigations
Risk Rank:	Risk Category:	ALARP?: Yes / No
OTHER: Chemicals/mud, pressure, burns		
Hazards		Preventions
Contact with chemicals, inhalation of dust		Preventive maintenance and inspections
Pressure from hp mud lines		PPE
Contact with hot surfaces		Labeling of hot surfaces
Consequences		Mitigations
Possibility of injury to personnel		Availability of MSDS
		Availability of medical treatment including medivac
Risk Rank: 13	Risk Category: Medium	ALARP?: Yes
RECOMMENDATIONS:		
Consider placing "Warning-Hot Surfaces" signs on the mud lines in the mud mixing area		

COMPARTMENT NAME: Mud Pit Room	
LOCATION: Midships inboard of Sack Store	
DIMENSIONS: 37.2m X 8m	MANNING: Intermittent
POWER / FLUID / CONTROL LINES:	
120v, drill water, chemicals, sea water, fire water Base oil, lp/hp mud	
CONTROL SYSTEMS:	
Start and stop buttons for pumps	
HVAC / DUCTING:	
Fire Damper #13, #14, #15, #16, and #17	
PASSIVE FIRE PROTECTION:	
Deck: A-0	Deckhead: A-0
Forward Bulkhead: A-0	Aft Bulkhead: A-60
Port Bulkhead: A-0	Starboard Bulkhead: A-0

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Comments / Recommendations
FIRE/GAS DETECTION:

	Space	Duct		Space	Duct
Constant Manning	<input type="checkbox"/>		Hydrocarbon Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>
Flame Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>	H ₂ S Detector(s)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Heat Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>	Other: _____	<input type="checkbox"/>	<input type="checkbox"/>
Smoke Detector(s)	<input checked="" type="checkbox"/>	<input type="checkbox"/>			

Comments / Recommendations
FIRE FIGHTING EQUIPMENT:

	Space	Adjacent		Space	Adjacent
Dry Powder Extinguisher(s)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	CO ₂ Extinguisher(s)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
H ₂ O extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>	Foam Extinguisher(s)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Fixed H ₂ O (Deluge, Sprinklers, etc.)	<input type="checkbox"/>		Fire Water Hose(s)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Fixed Halon	<input type="checkbox"/>		Fixed CO ₂	<input checked="" type="checkbox"/>	
Other: _____	<input type="checkbox"/>	<input type="checkbox"/>			

Comments / Recommendations

Call Button located outside port door along with fire station #12, Fire Station #13 and the CO₂ pull box is located outside of the stbd door

COMMUNICATIONS, ETC. :

Telephone #250	<input checked="" type="checkbox"/>	CCTV	<input type="checkbox"/>	PA Speaker	<input checked="" type="checkbox"/>
Fire Alarm Button	<input checked="" type="checkbox"/>	Bilge Alarm	<input type="checkbox"/>	Emergency Lighting	<input checked="" type="checkbox"/>
GA Alarm Button	<input type="checkbox"/>	General Alarm	<input checked="" type="checkbox"/>	Other: _____	<input type="checkbox"/>

Comments / Recommendations

Located center fwd of the pit room, two void spaces protrude out into the space. Piping for the Trip tanks run into these void spaces. Around the piping a gap exists, thus causing uncontrolled air to flow into a CO₂ controlled space

ESCAPE ROUTES:

When coming out of the mud pit room, take a left and go directly to the sack room. Once in the sack room utilize the stairs directly to the left.

COMPARTMENT: Mud Pit Room
FIRE:
Ignition Sources / Fuel

Electric wiring/shorts
Metal to metal contacts
Gas

Preventions (Note EX equipment)

Preventive maintenance and inspections
Eex equipment
Pressurization of space, well control/gas handling

Consequences

Possibility of damage to equipment/compartment
Possibility of injury to personnel

Mitigations

Firefighting capabilities
Availability of medical treatment

Risk Rank: 9

Risk Category: Low

ALARP?: Yes


EXPLOSION:
Ignition Sources / Fuel

Electric wiring/shorts
Metal to metal contacts
Gas

Preventions (Note EX equipment)

Preventive maintenance and inspections
Eex equipment
Pressurization of space, well control/gas handling

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Consequences		Mitigations	
Possibility of damage to equipment/compartments Possibility of injury to personnel		Firefighting capabilities Availability of medical treatment	
Risk Rank: 9	Risk Category: Low	ALARP?: Yes	
FLOOD:			
Hazards		Preventions	
		Drains.	
Consequences		Mitigations	
Risk Rank:	Risk Category:	ALARP?: Yes / No	
OTHER: Chemicals			
Hazards		Preventions	
Contact with chemicals in mud		PPE	
Consequences		Mitigations	
Possibility of injury to personnel		Availability of medical treatment availability of MSDS	
Risk Rank: 7	Risk Category: Low	ALARP?: Yes	
RECOMMENDATIONS:			

COMPARTMENT NAME:	Center Mud Pump Room		
LOCATION:	3 rd Deck Aft		
DIMENSIONS:	37.2m X 8.5m	MANNING:	Intermittent
POWER / FLUID / CONTROL LINES:			
120v, 480v, rig air, drill water, sea water, fire water Lp/hp mud lines Mud Pump Control Lines Pneumatic Control Lines Main Engine Fuel Oil Supply Lines			
CONTROL SYSTEMS:			
#2 Mud Pump Controls #3 Mud Pump Controls Main Engine Fuel Oil Shut-off for E/R #3 Main Engine Fuel Oil Shut-off for E/R #4			

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DEEPWATER HORIZON

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HVAC / DUCTING:					
Ventilation Ducting					
Fire Dampers					
PASSIVE FIRE PROTECTION:					
Deck: A-0		Deckhead: A-0			
Forward Bulkhead: A-0		Aft Bulkhead: A-60			
Port Bulkhead:		Starboard Bulkhead:			
Comments / Recommendations					
Port Bulkhead open to Port Mud Pump Room					
Stbd Bulkhead open to Stbd Mud Pump Room					
FIRE/GAS DETECTION:					
	Space	Duct		Space	Duct
Constant Manning	<input type="checkbox"/>		Hydrocarbon Detector(s)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Flame Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>	H ₂ S Detector(s)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Heat Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>	Other: _____	<input type="checkbox"/>	<input type="checkbox"/>
Smoke Detector(s)	<input checked="" type="checkbox"/>	<input type="checkbox"/>			
Comments / Recommendations					
Smoke Detectors #ASH-172506, ASH-172526, ASH-172706, & ASH-172724					
H ₂ S Detector #TGD-172501LH					
Combustible Gas Detector #CGD-172501LH					
FIRE FIGHTING EQUIPMENT:					
	Space	Adjacent		Space	Adjacent
Dry Powder Extinguisher(s)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	CO ₂ Extinguisher(s)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
H ₂ O Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>	Foam Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>
Fixed H ₂ O (Deluge, Sprinklers, etc.)	<input type="checkbox"/>		Fire Water Hose(s)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Fixed Halon	<input type="checkbox"/>		Fixed CO ₂	<input checked="" type="checkbox"/>	
Other: _____	<input type="checkbox"/>	<input type="checkbox"/>			
Comments / Recommendations					
Fire stations 12, 13, 30, & 31			CO ₂ Release for #3 Engine Room		
Foam Eductor at Fire Station #31			CO ₂ Release for #4 Engine Room		
CO ₂ Release for MCC Room (Port)			CO ₂ Release for Mud Pit Room		
CO ₂ Release for MCC Room (Stbd)					
COMMUNICATIONS, ETC. :					
Telephone	<input checked="" type="checkbox"/>	CCTV	<input type="checkbox"/>	PA Speaker	<input checked="" type="checkbox"/>
Fire Alarm Button	<input checked="" type="checkbox"/>	Bilge Alarm	<input type="checkbox"/>	Emergency Lighting	<input checked="" type="checkbox"/>
GA Alarm Button	<input type="checkbox"/>	General Alarm	<input checked="" type="checkbox"/>	Other: Talk-back	<input checked="" type="checkbox"/>
Comments / Recommendations					
Telephone #336			Fire Alarm Buttons #XS-172527, XS-172703, XS-172904, XS-172920, & XS-172B04		
Talk-back #27					
ESCAPE ROUTES:					
Primary: Aft through Passageway to ECR					
Alternate: Stbd through Sack Room, then to the Main Deck					
COMPARTMENT: Center Mud Pump Room					
FIRE:					
Ignition Sources / Fuel			Preventions (Note EX equipment)		
Electric wiring/shorts			Preventive maintenance and inspections		
Metal to metal contacts			Eex equipment		
Gas			Pressurization of space, well control/gas handing		

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Consequences		Mitigations	
Possibility of damage to equipment/compartment Possibility of injury to personnel		Firefighting capabilities Availability of medical treatment	
Risk Rank: 9	Risk Category: Low	ALARP?: Yes	
EXPLOSION:			
Ignition Sources / Fuel		Preventions (Note EX equipment)	
Electric wiring/shorts Metal to metal contacts Gas		Preventive maintenance and inspections Eex equipment Pressurization of space, well control/gas handing	
Consequences		Mitigations	
Possibility of damage to equipment/compartment Possibility of injury to personnel		Firefighting capabilities Availability of medical treatment	
Risk Rank: 9	Risk Category: Low	ALARP?: Yes	
FLOOD:			
Hazards		Preventions	
		Drains.	
Consequences		Mitigations	
Risk Rank:	Risk Category:	ALARP?: Yes / No	
OTHER: Chemicals, pressure			
Hazards		Preventions	
Contact with chemicals in mud High pressure mud line gouging out		PPE Preventive maintenance and inspections including ultra sound of piping	
Consequences		Mitigations	
Possibility of injury to personnel		Availability of medical treatment Availability of MSDS ESD's	
Risk Rank: 9	Risk Category: Low	ALARP?: Yes	
RECOMMENDATIONS:			
Consider the provision of an oily waste disposal container for this space. Also consider the installation of an approved flammable storage locker.			

COMPARTMENT NAME:	Stbd Mud Pump Room
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DEEPWATER HORIZON**

APPENDIX III

LOCATION: 3 rd Deck Aft					
DIMENSIONS: 15m X 8m			MANNING: As Required		
POWER / FLUID / CONTROL LINES: 120v, 480v, Lp/hp mud, sea water, drill water, fire water. Pneumatic Control Lines Control Lines for Mud Pump #4 Main Engine Fuel Oil Lines					
CONTROL SYSTEMS: Mud Pump Controls #4 Control Box for Emergency Fuel Oil Solenoids Emergency Fuel Oil Shut-off Valves for Main Engine #5 Emergency Fuel Oil Shut-off Valves for Main Engine #6					
HVAC / DUCTING: Ventilation ducting Fire Dampers (
PASSIVE FIRE PROTECTION:					
Deck: A-0		Deckhead: A-0			
Forward Bulkhead: A-0		Aft Bulkhead: A-0			
Port Bulkhead:		Starboard Bulkhead: A-0			
Comments / Recommendations					
FIRE/GAS DETECTION:					
	Space	Duct		Space	Duct
Constant Manning	<input type="checkbox"/>		Hydrocarbon Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>
Flame Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>	H ₂ S Detector(s)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Heat Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>	Other: _____	<input type="checkbox"/>	<input type="checkbox"/>
Smoke Detector(s)	<input checked="" type="checkbox"/>	<input type="checkbox"/>			
Comments / Recommendations					
FIRE FIGHTING EQUIPMENT:					
	Space	Adjacent		Space	Adjacent
Dry Powder Extinguisher(s)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	CO ₂ Extinguisher(s)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
H ₂ O Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>	Foam Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>
Fixed H ₂ O (Deluge, Sprinklers, etc.)	<input type="checkbox"/>		Fire Water Hose(s)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Fixed Halon	<input type="checkbox"/>		Fixed CO ₂	<input checked="" type="checkbox"/>	
Other: _____	<input type="checkbox"/>	<input type="checkbox"/>			
Comments / Recommendations Fire station #12, #13, #30, #31 – Fire Alarm Button					
COMMUNICATIONS, ETC. :					
Telephone	<input checked="" type="checkbox"/>	CCTV	<input type="checkbox"/>	PA Speaker	<input checked="" type="checkbox"/>
Fire Alarm Button	<input checked="" type="checkbox"/>	Bilge Alarm	<input type="checkbox"/>	Emergency Lighting	<input checked="" type="checkbox"/>
GA Alarm Button	<input type="checkbox"/>	General Alarm	<input checked="" type="checkbox"/>	Other:	<input type="checkbox"/>
Comments / Recommendations Fire dampers: XS172703, XS172527, XS172920, XS172304, XS172904					
ESCAPE ROUTES:					

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Make your way up the stairs to sack room. Once in the sack room the stairs are directly to the left.

COMPARTMENT: Stbd Mud Pump Room			
FIRE:			
Ignition Sources / Fuel		Preventions (Note EX equipment)	
Electric wiring/shorts Metal to metal contacts Gas		Preventive maintenance and inspections Eex equipment Pressurization of space, well control/gas handing	
Consequences		Mitigations	
Possibility of damage to equipment/compartment Possibility of injury to personnel		Firefighting capabilities Availability of medical treatment	
Risk Rank: 9	Risk Category: Low	ALARP?: Yes	
EXPLOSION:			
Ignition Sources / Fuel		Preventions (Note EX equipment)	
Electric wiring/shorts Metal to metal contacts Gas		Preventive maintenance and inspections Eex equipment Pressurization of space, well control/gas handing	
Consequences		Mitigations	
Possibility of damage to equipment/compartment Possibility of injury to personnel		Firefighting capabilities Availability of medical treatment	
Risk Rank: 9	Risk Category: Low	ALARP?: Yes	
FLOOD:			
Hazards		Preventions	
		Drains.	
Consequences		Mitigations	
Risk Rank:	Risk Category:	ALARP?: Yes / No	
OTHER:			
Hazards		Preventions	
Contact with chemicals in mud High pressure mud line gouging out		PPE Preventive maintenance and inspections including ultra sound of piping	
Consequences		Mitigations	
Possibility of injury to personnel		Availability of medical treatment Availability of MSDS ESD's	
Risk Rank: 9	Risk Category: Low	ALARP?: Yes	

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RISK ASSESSMENT
DEEPWATER HORIZON

APPENDIX III

RECOMMENDATIONS:


COMPARTMENT NAME: Paint Locker																																		
LOCATION: Stbd aft main deck																																		
DIMENSIONS: 2.4m x 4.3m	MANNING: As required																																	
POWER / FLUID / CONTROL LINES: 240V power supply																																		
CONTROL SYSTEMS: Controls for fan and light.																																		
HVAC / DUCTING: Mechanical exhaust																																		
PASSIVE FIRE PROTECTION:																																		
Deck: A-0	Deckhead: A-0																																	
Forward Bulkhead: A-0	Aft Bulkhead: A-0																																	
Port Bulkhead: A-0	Starboard Bulkhead: A-0																																	
Comments / Recommendations																																		
FIRE/GAS DETECTION:																																		
<table border="1"><thead><tr><th></th><th>Space</th><th>Duct</th></tr></thead><tbody><tr><td>Constant Manning</td><td><input type="checkbox"/></td><td></td></tr><tr><td>Flame Detector(s)</td><td><input type="checkbox"/></td><td><input type="checkbox"/></td></tr><tr><td>Heat Detector(s)</td><td><input checked="" type="checkbox"/></td><td><input type="checkbox"/></td></tr><tr><td>Smoke Detector(s)</td><td><input type="checkbox"/></td><td><input type="checkbox"/></td></tr></tbody></table>		Space	Duct	Constant Manning	<input type="checkbox"/>		Flame Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>	Heat Detector(s)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Smoke Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>	<table border="1"><thead><tr><th></th><th>Space</th><th>Duct</th></tr></thead><tbody><tr><td>Hydrocarbon Detector(s)</td><td><input type="checkbox"/></td><td><input type="checkbox"/></td></tr><tr><td>H₂S Detector(s)</td><td><input type="checkbox"/></td><td><input type="checkbox"/></td></tr><tr><td>Other: _____</td><td><input type="checkbox"/></td><td><input type="checkbox"/></td></tr></tbody></table>		Space	Duct	Hydrocarbon Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>	H ₂ S Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>	Other: _____	<input type="checkbox"/>	<input type="checkbox"/>						
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Hydrocarbon Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>																																
H ₂ S Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>																																
Other: _____	<input type="checkbox"/>	<input type="checkbox"/>																																
Comments / Recommendations Heat detector not yet installed.																																		
FIRE FIGHTING EQUIPMENT:																																		
<table border="1"><thead><tr><th></th><th>Space</th><th>Adjacent</th></tr></thead><tbody><tr><td>Dry Powder Extinguisher(s)</td><td><input type="checkbox"/></td><td><input type="checkbox"/></td></tr><tr><td>H₂O Extinguisher(s)</td><td><input type="checkbox"/></td><td><input type="checkbox"/></td></tr><tr><td>Fixed H₂O (Deluge, Sprinklers, etc.)</td><td><input type="checkbox"/></td><td></td></tr><tr><td>Fixed Halon</td><td><input type="checkbox"/></td><td></td></tr><tr><td>Other: _____</td><td><input type="checkbox"/></td><td><input type="checkbox"/></td></tr></tbody></table>		Space	Adjacent	Dry Powder Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>	H ₂ O Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>	Fixed H ₂ O (Deluge, Sprinklers, etc.)	<input type="checkbox"/>		Fixed Halon	<input type="checkbox"/>		Other: _____	<input type="checkbox"/>	<input type="checkbox"/>	<table border="1"><thead><tr><th></th><th>Space</th><th>Adjacent</th></tr></thead><tbody><tr><td>CO₂ Extinguisher(s)</td><td><input type="checkbox"/></td><td><input type="checkbox"/></td></tr><tr><td>Foam Extinguisher(s)</td><td><input type="checkbox"/></td><td><input type="checkbox"/></td></tr><tr><td>Fire Water Hose(s)</td><td><input type="checkbox"/></td><td><input checked="" type="checkbox"/></td></tr><tr><td>Fixed CO₂</td><td><input checked="" type="checkbox"/></td><td></td></tr></tbody></table>		Space	Adjacent	CO ₂ Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>	Foam Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>	Fire Water Hose(s)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Fixed CO ₂	<input checked="" type="checkbox"/>	
	Space	Adjacent																																
Dry Powder Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>																																
H ₂ O Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>																																
Fixed H ₂ O (Deluge, Sprinklers, etc.)	<input type="checkbox"/>																																	
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Fixed CO ₂	<input checked="" type="checkbox"/>																																	

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Comments / Recommendations		
COMMUNICATIONS, ETC. :		
Telephone <input type="checkbox"/>	CCTV <input type="checkbox"/>	PA Speaker <input type="checkbox"/>
Fire Alarm Button <input type="checkbox"/>	Bilge Alarm <input type="checkbox"/>	Emergency Lighting <input type="checkbox"/>
GA Alarm Button <input type="checkbox"/>	General Alarm <input type="checkbox"/>	Other: <input type="checkbox"/>
Comments / Recommendations		
ESCAPE ROUTES:		
1 door to riser deck		
COMPARTMENT: Paint Locker		
FIRE:		
Ignition Sources / Fuel	Preventions (Note EX equipment)	
Electric wiring/shorts Flammable liquids Spontaneous combustion of dirty rags	Preventive maintenance and inspections Housekeeping	
Consequences	Mitigations	
Possibility of damage to compartment Possibility of injury to personnel	Firefighting capabilities Availability of medical treatment	
Risk Rank: 9	Risk Category: Low	ALARP?: Yes
EXPLOSION:		
Ignition Sources / Fuel	Preventions (Note EX equipment)	
Electric wiring/shorts Flammable liquids fumes Spontaneous combustion of dirty rags	Preventive maintenance and inspections Housekeeping - keeping containers sealed	
Consequences	Mitigations	
Possibility of damage to compartment Possibility of injury to personnel	Firefighting capabilities Availability of medical treatment	
Risk Rank: 9	Risk Category: Low	ALARP?: Yes
FLOOD:		
Hazards	Preventions	
	Drains.	
Consequences	Mitigations	
Risk Rank:	Risk Category:	ALARP?: Yes / No

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OTHER: Chemicals, fumes		
Hazards		Preventions
Exposure to toxic liquids/fumes		PPE Ventilation
Consequences		Mitigations
Possibility of injury to personnel		Availability of MSDS Availability of medical treatment including medivac
Risk Rank: 9	Risk Category: Low	ALARP?: Yes
RECOMMENDATIONS:		

COMPARTMENT NAME: Port Access Tunnel											
LOCATION: Port Pontoon											
DIMENSIONS: 31m x 1.6m	MANNING:										
POWER / FLUID / CONTROL LINES:											
120v, 480v, bilge lines, rig air, fuel											
CONTROL SYSTEMS:											
Transponder shaft in space with manual and electric control systems											
HVAC / DUCTING:											
Ventilation fans and ducting on each end.											
PASSIVE FIRE PROTECTION:											
Deck: A-0	Deckhead: A-0										
Forward Bulkhead: A-0	Aft Bulkhead: A-0										
Port Bulkhead: A-0	Starboard Bulkhead: A-0										
Comments / Recommendations											
FIRE/GAS DETECTION:											
Constant Manning Flame Detector(s) Heat Detector(s) Smoke Detector(s)	<table border="1"> <thead> <tr> <th>Space</th> <th>Duct</th> </tr> </thead> <tbody> <tr> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td><input checked="" type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> </tbody> </table>	Space	Duct	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Space	Duct										
<input type="checkbox"/>	<input type="checkbox"/>										
<input type="checkbox"/>	<input type="checkbox"/>										
<input type="checkbox"/>	<input type="checkbox"/>										
<input checked="" type="checkbox"/>	<input type="checkbox"/>										
Hydrocarbon Detector(s) H ₂ S Detector(s) Other: _____	<table border="1"> <thead> <tr> <th>Space</th> <th>Duct</th> </tr> </thead> <tbody> <tr> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> </tbody> </table>	Space	Duct	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Space	Duct										
<input type="checkbox"/>	<input type="checkbox"/>										
<input type="checkbox"/>	<input type="checkbox"/>										
<input type="checkbox"/>	<input type="checkbox"/>										
Comments / Recommendations											
ASH172015/ASH172016											
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FIRE FIGHTING EQUIPMENT:					
Dry Powder Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>	CO ₂ Extinguisher(s)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
H ₂ O Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>	Foam Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>
Fixed H ₂ O (Deluge, Sprinklers, etc.)	<input type="checkbox"/>		Fire Water Hose(s)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Fixed Halon	<input type="checkbox"/>		Fixed CO ₂	<input type="checkbox"/>	
Other:	<input type="checkbox"/>	<input type="checkbox"/>			
Comments / Recommendations FS #54					
COMMUNICATIONS, ETC. :					
Telephone	<input type="checkbox"/>	CCTV	<input type="checkbox"/>	PA Speaker	<input checked="" type="checkbox"/>
Fire Alarm Button	<input checked="" type="checkbox"/>	Bilge Alarm	<input type="checkbox"/>	Emergency Lighting	<input checked="" type="checkbox"/>
GA Alarm Button	<input type="checkbox"/>	General Alarm	<input type="checkbox"/>	Other:	<input type="checkbox"/>
Comments / Recommendations Fire alarm button XS172014					
ESCAPE ROUTES:					
Two ways out. Either through the door to port fwd pump room or the port aft pump room and take the elevator or ladder up.					
COMPARTMENT: Port Access Tunnel					
FIRE:					
Ignition Sources / Fuel			Preventions (Note EX equipment)		
Consequences			Mitigations		
Risk Rank:	Risk Category:		ALARP?: Yes / No		
EXPLOSION:					
Ignition Sources / Fuel			Preventions (Note EX equipment)		
Consequences			Mitigations		
Risk Rank:	Risk Category:		ALARP?: Yes / No		
FLOOD:					
Hazards			Preventions		

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ship collision (major hazard tables)		Drains.
Consequences		Mitigations
Risk Rank:	Risk Category:	ALARP?: Yes / No
OTHER: Struck by/caught between		
Hazards		Preventions
Sliding watertight doors		Training in operation Audible alarms on operation Preventive maintenance and inspections (alarms)
Consequences		Mitigations
Possibility of injury to personnel Possibility of fatality		Availability of medical treatment including medivac Notification to CCR when entering pontoons Remote indication for doors
Risk Rank: 15	Risk Category: Medium	ALARP?: Yes
RECOMMENDATIONS:		

COMPARTMENT NAME:	Port fwd electrical thruster space upper and lower (typical)		
LOCATION:	P/F column, 9.1m and 12.1m levels, aft.		
DIMENSIONS: Approx. 11m x 5.5m	MANNING: None normally		
POWER / FLUID / CONTROL LINES:			
120v, 11kV power, cooling water, drill water, base oil,			
CONTROL SYSTEMS:			
MCC 27 – Thruster #7, Thruster drive controls, emergency steering controls. Process station #7			
HVAC / DUCTING:			
Package A/C unit, WTD 172312, Fire zone 48			
PASSIVE FIRE PROTECTION:			
Deck:	A-0	Deckhead:	A-0
Forward Bulkhead:	A-60	Aft Bulkhead:	A-0
Port Bulkhead:	A-0	Starboard Bulkhead:	A-0
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Comments / Recommendations

#8 thruster drive room forward of space.

FIRE/GAS DETECTION:

	Space	Duct		Space	Duct
Constant Manning	<input type="checkbox"/>		Hydrocarbon Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>
Flame Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>	H ₂ S Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>
Heat Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>	Other: _____	<input type="checkbox"/>	<input type="checkbox"/>
Smoke Detector(s)	<input checked="" type="checkbox"/>	<input type="checkbox"/>			

Comments / Recommendations

FIRE FIGHTING EQUIPMENT:

	Space	Adjacent		Space	Adjacent
Dry Powder Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>	CO ₂ Extinguisher(s)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
H ₂ O Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>	Foam Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>
Fixed H ₂ O (Deluge, Sprinklers, etc.)	<input type="checkbox"/>		Fire Water Hose(s)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Fixed Halon	<input type="checkbox"/>		Fixed CO ₂	<input type="checkbox"/>	
Other: _____	<input type="checkbox"/>	<input type="checkbox"/>			

Comments / Recommendations

COMMUNICATIONS, ETC. :

Telephone	<input checked="" type="checkbox"/>	CCTV	<input type="checkbox"/>	PA Speaker	<input checked="" type="checkbox"/>
Fire Alarm Button	<input checked="" type="checkbox"/>	Bilge Alarm	<input type="checkbox"/>	Emergency Lighting	<input checked="" type="checkbox"/>
GA Alarm Button	<input type="checkbox"/>	General Alarm	<input checked="" type="checkbox"/>	Other: _____	<input type="checkbox"/>

Comments / Recommendations

ESCAPE ROUTES:

Spiral stairway to 2nd deck accommodation then inboard to fwd door leading to lifeboat deck.

COMPARTMENT: Port Fwd Electrical thruster Space, upper and lower)

FIRE:

Ignition Sources / Fuel	Preventions (Note EX equipment)
Electrical wiring/shorts	Preventive maintenance and inspections
Consequences	Mitigations
Possibility of damage to equipment/compartment	Firefighting capabilities Availability of medical treatment
Risk Rank: 9	Risk Category: Low
	ALARP?: Yes

EXPLOSION:

Ignition Sources / Fuel	Preventions (Note EX equipment)
Consequences	Mitigations

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Risk Rank:	Risk Category:	ALARP?: Yes / No	
FLOOD:			
Hazards		Preventions	
		Drains.	
Consequences		Mitigations	
Risk Rank:	Risk Category:	ALARP?: Yes / No	
OTHER: Electrical shock, struck by/caught between			
Hazards		Preventions	
Contact with live energy sources Sliding watertight doors		PPE, PTW, energy isolation Training in operation of doors/audible alarms Preventive maintenance and inspections	
Consequences		Mitigations	
Possibility of injury to personnel Possibility of fatality		Availability of medical treatment including medivac Remote indication for doors Notifications to CCR when entering columns	
Risk Rank: 15	Risk Category: Medium	ALARP?: Yes	
RECOMMENDATIONS:			
Consider the placement of a sign detailing the steps to take in an electric shock situation.			

COMPARTMENT NAME:	Number One Process Unit		
LOCATION:	Port Forward Main Deck, behind CCR		
DIMENSIONS: 4m X 3.8m	MANNING: As Required		
POWER / FLUID / CONTROL LINES:			
1810462 24v DC Power Distribution Lighting LP017-18D 120v Power Outlets LP-017-20B			

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CONTROL SYSTEMS:

Process 23 MRU #1
Process 24
UPS 10
Gyro Compass Number 2
Light Control Navaid System

HVAC / DUCTING:

Air conditioned, manual damper in space.
Natural exhaust, manual vent/door on aft bulkhead.

PASSIVE FIRE PROTECTION:

Deck:	A-60	Deckhead:	A-60
Forward Bulkhead:	A-60	Aft Bulkhead:	A-60
Port Bulkhead:	A-60	Starboard Bulkhead:	A-60

Comments / Recommendations

FIRE/GAS DETECTION:

	Space	Duct		Space	Duct
Constant Manning	<input type="checkbox"/>		Hydrocarbon Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>
Flame Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>	H ₂ S Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>
Heat Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>	Other: _____	<input type="checkbox"/>	<input type="checkbox"/>
Smoke Detector(s)	<input checked="" type="checkbox"/>	<input type="checkbox"/>			

Comments / Recommendations

ASH 172201

FIRE FIGHTING EQUIPMENT:

	Space	Adjacent		Space	Adjacent
Dry Powder Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>	CO ₂ Extinguisher(s)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
H ₂ O Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>	Foam Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>
Fixed H ₂ O (Deluge, Sprinklers, etc.)	<input type="checkbox"/>		Fire Water Hose(s)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Fixed Halon	<input type="checkbox"/>		Fixed CO ₂	<input type="checkbox"/>	
Other:	<input type="checkbox"/>	<input type="checkbox"/>			

Comments / Recommendations

COMMUNICATIONS, ETC. :


Telephone	<input type="checkbox"/>	CCTV	<input type="checkbox"/>	PA Speaker	<input checked="" type="checkbox"/>
Fire Alarm Button	<input type="checkbox"/>	Bilge Alarm	<input type="checkbox"/>	Emergency Lighting	<input type="checkbox"/>
GA Alarm Button	<input type="checkbox"/>	General Alarm	<input checked="" type="checkbox"/>	Other: Toxic/Combustible gas alarm buttons.	<input type="checkbox"/>

Comments / Recommendations

ESCAPE ROUTES:

One door to space, walk stbd to stairs to lifeboat deck

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COMPARTMENT: Number 1 Process Unit		
FIRE:		
Ignition Sources / Fuel	Preventions (Note EX equipment)	
Electric wiring/shorts	Preventive maintenance and inspections	
Consequences	Mitigations	
Possibility of damage to equipment/compartment	Firefighting capabilities Availability of medical treatment including medivac	
Risk Rank: 9	Risk Category: Low	ALARP?: Yes
EXPLOSION:		
Ignition Sources / Fuel	Preventions (Note EX equipment)	
Consequences	Mitigations	
Risk Rank:	Risk Category:	ALARP?: Yes / No
FLOOD:		
Hazards	Preventions	
	Drains.	
Consequences	Mitigations	
Risk Rank:	Risk Category:	ALARP?: Yes / No
OTHER: Electrical shock		
Hazards	Preventions	
Contact with live energy sources	Preventive maintenance and inspections PPE, PTW, energy isolation	
Consequences	Mitigations	
Possibility of injury to personnel Possibility of fatality	Availability of medical treatment including medivac	
Risk Rank: 15	Risk Category: Medium	ALARP?: Yes
RECOMMENDATIONS:		

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Consider the placement of a "High Voltage" warning sign on the door.

COMPARTMENT NAME: Rig Floor					
LOCATION: Center of rig main deck					
DIMENSIONS: 23m X 11m				MANNING: 9	
POWER / FLUID / CONTROL LINES: 120v, 480v, high pressure wash down Hydraulics, fire water, rig air, hp mud					
CONTROL SYSTEMS: Stbd fwd hydraulic valve controls side & slide mousehole. Manual hydraulic valve controls flow to center stbd manifold for hydraulics for spider gimble operation.					
HVAC / DUCTING: Fire station located at the port aft bulkhead on rig floor.					
PASSIVE FIRE PROTECTION:					
Deck: N/A			Deckhead:		
Forward			Aft Bulkhead:		
Bulkhead:			Starboard Bulkhead:		
Port Bulkhead:					
Comments / Recommendations 2 gas detectors: 1st located on fwd bulkhead, 2 nd stbd center in front of draw works					
FIRE/GAS DETECTION:					
Constant Manning	Space <input checked="" type="checkbox"/>	Duct <input type="checkbox"/>	Hydrocarbon Detector(s)	Space <input checked="" type="checkbox"/>	Duct <input type="checkbox"/>
Flame Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>	H ₂ S Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>
Heat Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>	Other: _____	<input type="checkbox"/>	<input type="checkbox"/>
Smoke Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>			
Comments / Recommendations					
FIRE FIGHTING EQUIPMENT:					
Dry Powder Extinguisher(s)	Space <input checked="" type="checkbox"/>	Adjacent <input type="checkbox"/>	CO ₂ Extinguisher(s)	Space <input checked="" type="checkbox"/>	Adjacent <input type="checkbox"/>
H ₂ O Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>	Foam Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>
Fixed H ₂ O (Deluge, Sprinklers, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	Fire Water Hose(s)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Fixed Halon	<input type="checkbox"/>	<input type="checkbox"/>	Fixed CO ₂	<input type="checkbox"/>	<input type="checkbox"/>
Other: _____	<input type="checkbox"/>	<input type="checkbox"/>			
Comments / Recommendations Co2 bottles are located on the port and stbd fwd bulkheads of the rig floor					
COMMUNICATIONS, ETC. :					
Telephone	<input checked="" type="checkbox"/>	CCTV	<input checked="" type="checkbox"/>	PA Speaker	<input checked="" type="checkbox"/>
Fire Alarm Button	<input type="checkbox"/>	Bilge Alarm	<input type="checkbox"/>	Emergency Lighting	<input type="checkbox"/>
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GA Alarm Button	<input type="checkbox"/>	General Alarm	<input type="checkbox"/>	Other: Alarm light beacon	<input type="checkbox"/>
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Comments / Recommendations

ESCAPE ROUTES:
Possibly 1) AFT onto riser cart 2) Port aft door 3) Center fwd door at conveyor 4) Stbd fwd heavy tool room, and 5) Stbd door center

COMPARTMENT: Rig Floor

FIRE:

Ignition Sources / Fuel	Preventions (Note EX equipment)
--------------------------------	--

Blowout (major hazard tables)	
-------------------------------	--

Consequences	Mitigations
---------------------	--------------------

--	--

Risk Rank:	Risk Category:	ALARP?: Yes / No
-------------------	-----------------------	-------------------------

EXPLOSION:

Ignition Sources / Fuel	Preventions (Note EX equipment)
--------------------------------	--

Blowout (major hazard tables)	
-------------------------------	--

Consequences	Mitigations
---------------------	--------------------

--	--

Risk Rank:	Risk Category:	ALARP?: Yes / No
-------------------	-----------------------	-------------------------

FLOOD:

Hazards	Preventions
----------------	--------------------

	Drains.
--	---------

Consequences	Mitigations
---------------------	--------------------

--	--

Risk Rank:	Risk Category:	ALARP?: Yes / No
-------------------	-----------------------	-------------------------


OTHER: Toxic gas release, dropped/fallen objects, radioactive/explosive materials

Hazards	Preventions
----------------	--------------------

(major hazard tables)	
-----------------------	--

Consequences	Mitigations
---------------------	--------------------

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Fixed Halon	<input type="checkbox"/>	<input type="checkbox"/>	Fixed CO ₂	<input checked="" type="checkbox"/>	
Other: _____	<input type="checkbox"/>	<input type="checkbox"/>			

Comments / Recommendations
CO2 controls in CO2 bottle room aft of space.

COMMUNICATIONS, ETC. :

Telephone <input type="checkbox"/>	CCTV <input type="checkbox"/>	PA Speaker <input type="checkbox"/>
Fire Alarm Button <input type="checkbox"/>	Bilge Alarm <input type="checkbox"/>	Emergency Lighting <input type="checkbox"/>
GA Alarm Button <input type="checkbox"/>	General Alarm <input type="checkbox"/>	Other: <input type="checkbox"/>

Comments / Recommendations

ESCAPE ROUTES:
One door to space. Follow walkway fwd or aft to lifeboats.

COMPARTMENT: Roustabout Locker

FIRE:

Ignition Sources / Fuel	Preventions (Note EX equipment)
Flammable aerosols/hydrocarbon based greases Oily rags	Inspections, housekeeping Proper storage of soiled rags and flammables
Consequences	Mitigations
Possibility of damage to compartment Possibility of injury to personnel	Firefighting capabilities Availability of medical treatment including medivac
Risk Rank: 9	Risk Category: Low ALARP?: Yes


EXPLOSION:

Ignition Sources / Fuel	Preventions (Note EX equipment)
Consequences	Mitigations
Risk Rank:	Risk Category: ALARP?: Yes / No

FLOOD:

Hazards	Preventions
	Drains.
Consequences	Mitigations
Risk Rank:	Risk Category: ALARP?: Yes / No


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OTHER:		
Hazards		Preventions
Consequences		Mitigations
Risk Rank:	Risk Category:	ALARP?: Yes / No
RECOMMENDATIONS:		

COMPARTMENT NAME:	ROV Unit					
LOCATION:	Starboard forward Main Deck					
DIMENSIONS:	13 Ft X 20 Ft			MANNING:	3	
POWER / FLUID / CONTROL LINES:						
120v, 480v. Hydraulic Power unit. Winch unit w/ electrical control lines.						
CONTROL SYSTEMS:						
ROV control unit station adjacent to ROV Winch control station. Junction/control boxes: CJBPA-018 PA/GA, DIS JB, JB-ROV1-2, JB-ROV1-1, FJBT05 F&G CONN, JB-ROV1-4 Charge Set (M-102), JB-ROV-2 Work Van (X-101), LAN JB, Radio Comm JB, Auto Tel Conn Box, JBCV 13,12,14 and 15. JB-ROV1-3, JB-ROV1-1.						
HVAC / DUCTING:						
Exh. Fan (#116) for Stbd Trans Rm., Supply Fan (#106) for Galley MF2, NAT supply fan for Galley.						
PASSIVE FIRE PROTECTION:						
Deck: Forward Bulkhead: On main deck Port Bulkhead:			Deckhead: Aft Bulkhead: Starboard Bulkhead:			
Comments / Recommendations						
FIRE/GAS DETECTION:						
Constant Manning	Space <input checked="" type="checkbox"/>	Duct	Hydrocarbon Detector(s)	Space <input checked="" type="checkbox"/>	Duct <input type="checkbox"/>	
Flame Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>	H ₂ S Detector(s)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Heat Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>	Other: _____	<input type="checkbox"/>	<input type="checkbox"/>	
Smoke Detector(s)	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
Comments / Recommendations						

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FIRE FIGHTING EQUIPMENT:					
	Space	Adjacent		Space	Adjacent
Dry Powder Extinguisher(s)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	CO ₂ Extinguisher(s)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
H ₂ O Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>	Foam Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>
Fixed H ₂ O (Deluge, Sprinklers, etc.)	<input type="checkbox"/>		Fire Water Hose(s)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Fixed Halon	<input type="checkbox"/>		Fixed CO ₂	<input type="checkbox"/>	
Other:	<input type="checkbox"/>	<input type="checkbox"/>			

Comments / Recommendations
FS #08, FS #09.

COMMUNICATIONS, ETC. :					
Telephone	<input checked="" type="checkbox"/>	CCTV	<input type="checkbox"/>	PA Speaker	<input checked="" type="checkbox"/>
Fire Alarm Button	<input checked="" type="checkbox"/>	Bilge Alarm	<input type="checkbox"/>	Emergency Lighting	<input checked="" type="checkbox"/>
GA Alarm Button	<input checked="" type="checkbox"/>	General Alarm	<input checked="" type="checkbox"/>	Other:	<input type="checkbox"/>

Comments / Recommendations Sat Phone and VHF Radio inside the Oceaneering Control Rm.
Life ring on railing.

ESCAPE ROUTES:
On main deck, take stairs to fwd life boats or after boats


COMPARTMENT: ROV Unit

FIRE:		
Ignition Sources / Fuel	Preventions (Note EX equipment)	
Electrical wiring/shorts Hydraulic fluid	Preventive maintenance and inspections	
Consequences	Mitigations	
Possibility of damage to ROV, workshop, control van Possibility of injury to personnel	Firefighting capabilities Availability of medical treatment including medivac	
Risk Rank: 14	Risk Category: Medium	ALARP?: Yes

EXPLOSION:		
Ignition Sources / Fuel	Preventions (Note EX equipment)	
Consequences	Mitigations	
Risk Rank:	Risk Category:	ALARP?: Yes / No

FLOOD:	
Hazards	Preventions
	Drains.

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Consequences		Mitigations
Risk Rank:	Risk Category:	ALARP?: Yes / No
OTHER: Pressure / Environmental		
Hazards		Preventions
Leak from hydraulic power unit, piping/stored pressure		PPE, PTW, energy isolation Preventive maintenance and inspections
Consequences		Mitigations
Possibility of injury to personnel Possible environmental impact		Availability of medical treatment including medivac Spill response procedures
Risk Rank: 9	Risk Category: Low	ALARP?: Yes
RECOMMENDATIONS:		
Consider the installation of a smoke detector in the ROV control van		

COMPARTMENT NAME:	Sack Store		
LOCATION:	Stbd midship aft of accommodations		
DIMENSIONS:	36.2m X 18m	MANNING:	As required
POWER / FLUID / CONTROL LINES:			
120v, 480v, pot water, hp wash down, rig air, brine Sea water, lp mud diesel, bulk			
CONTROL SYSTEMS:			
Res mud system control, battery back-up breaker, no. 3 connection panel for welding outlets			
HVAC / DUCTING:			
Fire damper and ventilation ducting #43, #39, #62, #24, #17, #16, #15, #23, #44			
PASSIVE FIRE PROTECTION:			
Deck:	A-0	Deckhead:	A-0
Forward Bulkhead:	A-60	Aft Bulkhead:	A-60
Port Bulkhead:	A-0	Starboard Bulkhead:	A-0
Comments / Recommendations			
Various chemicals and oil totes are stored in this area at any given time			

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FIRE/GAS DETECTION:					
	Space	Duct		Space	Duct
Constant Manning	<input type="checkbox"/>		Hydrocarbon Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>
Flame Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>	H ₂ S Detector(s)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Heat Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>	Other: _____	<input type="checkbox"/>	<input type="checkbox"/>
Smoke Detector(s)	<input checked="" type="checkbox"/>	<input type="checkbox"/>			
Comments / Recommendations					

FIRE FIGHTING EQUIPMENT:					
	Space	Adjacent		Space	Adjacent
Dry Powder Extinguisher(s)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	CO ₂ Extinguisher(s)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
H ₂ O Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>	Foam Extinguisher(s)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Fixed H ₂ O (Deluge, Sprinklers, etc.)	<input type="checkbox"/>		Fire Water Hose(s)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Fixed Halon	<input type="checkbox"/>		Fixed CO ₂	<input type="checkbox"/>	
Other: _____	<input type="checkbox"/>	<input type="checkbox"/>			
Comments / Recommendations					

Fire Station #15 located on aft bulkhead of fwd compartment and Fire Station #14 Located Fwd bulkhead of aft compartment


COMMUNICATIONS, ETC. :					
Telephone	<input checked="" type="checkbox"/>	CCTV	<input type="checkbox"/>	PA Speaker	<input checked="" type="checkbox"/>
Fire Alarm Button	<input checked="" type="checkbox"/>	Bilge Alarm	<input type="checkbox"/>	Emergency Lighting	<input type="checkbox"/>
GA Alarm Button	<input type="checkbox"/>	General Alarm	<input checked="" type="checkbox"/>	Other: _____	<input type="checkbox"/>

Comments / Recommendations
XS 172707, XS 172725

ESCAPE ROUTES:	
Upstairs to main deck, Fwd through accommodation, or aft through ER	

COMPARTMENT: Sack Store			
FIRE:			
Ignition Sources / Fuel		Preventions (Note EX equipment)	
Electric wiring/shorts Class A materials/chemicals		Preventive maintenance and inspections Housekeeping	
Consequences		Mitigations	
Possibility of loss of inventory/damage to compartment		Firefighting capabilities Availability of medical treatment	
Risk Rank:	9	Risk Category: Low	ALARP?: Yes
EXPLOSION:			
Ignition Sources / Fuel		Preventions (Note EX equipment)	
Consequences		Mitigations	

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Risk Rank:	Risk Category:	ALARP?: Yes / No	
FLOOD:			
Hazards		Preventions	
		Drains.	
Consequences		Mitigations	
Risk Rank:	Risk Category:	ALARP?: Yes / No	
OTHER: Chemicals/dust			
Hazards		Preventions	
Exposure to toxic chemicals/ inhalation of dust		PPE Housekeeping	
Consequences		Mitigations	
Possibility of injury to personnel		Availability of MSDS Availability of medical treatment including medivac	
Risk Rank: 9	Risk Category: Low	ALARP?: Yes	
RECOMMENDATIONS:			

COMPARTMENT NAME:	Ship Service Air Compressor Room port		
LOCATION:	2 nd deck, port side, inboard of welding shop		
DIMENSIONS:	Approx. 13m X 8.1m	MANNING:	As required
POWER / FLUID / CONTROL LINES:			
120v, sea water, fresh water, rig air, brine, base oil and high pressure mud. Space contains rig air receiver and is a storage location for drums of oil.			
CONTROL SYSTEMS:			
Rig air compressor #1 and #4. fan controls for welding shop exhaust, aux. Machine room supply & exhaust and mud pit supply & exhaust.			

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HVAC / DUCTING:

FD 30 supply, FD 34 exhaust, Fire zone 15

PASSIVE FIRE PROTECTION:

Deck:	A-0	Deckhead:	A-0
Forward Bulkhead:	A-0	Aft Bulkhead:	A-60
Port Bulkhead:	A-0	Starboard Bulkhead:	A-0

Comments / Recommendations

Welding shop outboard of space.

FIRE/GAS DETECTION:

	Space	Duct		Space	Duct
Constant Manning	<input type="checkbox"/>		Hydrocarbon Detector(s)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Flame Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>	H ₂ S Detector(s)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Heat Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>	Other: _____	<input type="checkbox"/>	<input type="checkbox"/>
Smoke Detector(s)	<input checked="" type="checkbox"/>	<input type="checkbox"/>			

Comments / Recommendations

ASH 172505, ASH 172529

FIRE FIGHTING EQUIPMENT:

	Space	Adjacent		Space	Adjacent
Dry Powder Extinguisher(s)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	CO ₂ Extinguisher(s)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
H ₂ O Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>	Foam Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>
Fixed H ₂ O (Deluge, Sprinklers, etc.)	<input type="checkbox"/>		Fire Water Hose(s)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Fixed Halon	<input type="checkbox"/>		Fixed CO ₂	<input type="checkbox"/>	
Other: _____	<input type="checkbox"/>	<input type="checkbox"/>			

Comments / Recommendations

COMMUNICATIONS, ETC. :

Telephone	<input checked="" type="checkbox"/>	CCTV	<input type="checkbox"/>	PA Speaker	<input checked="" type="checkbox"/>
Fire Alarm Button	<input checked="" type="checkbox"/>	Bilge Alarm	<input type="checkbox"/>	Emergency Lighting	<input checked="" type="checkbox"/>
GA Alarm Button	<input type="checkbox"/>	General Alarm	<input checked="" type="checkbox"/>	Other: Signal light tree	<input checked="" type="checkbox"/>

Comments / Recommendations

ESCAPE ROUTES:

Go out the fwd door then up the stairway to main deck.

COMPARTMENT: Ship Service Air Compressor Room Port

FIRE:

Ignition Sources / Fuel

Electrical wiring/shorts
Spontaneous combustion of oily waste

Preventions (Note EX equipment)

Preventive maintenance and inspections
Housekeeping
Proper disposal of oily waste


Consequences

Possibility of damage to equipment/compartment
Possibility of injury to personnel

Mitigations

Firefighting capabilities
Availability of medical treatment including medivac

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Risk Rank:	9	Risk Category:	Low	ALARP?:	Yes
EXPLOSION:					
Ignition Sources / Fuel			Preventions (Note EX equipment)		
Consequences			Mitigations		
Risk Rank:		Risk Category:		ALARP?:	Yes / No
FLOOD:					
Hazards			Preventions		
			Drains.		
Consequences			Mitigations		
Risk Rank:		Risk Category:		ALARP?:	Yes / No
OTHER:					
Hazards			Preventions		
Consequences			Mitigations		
Risk Rank:		Risk Category:		ALARP?:	Yes / No
RECOMMENDATIONS:					
Consider the provision of an oily waste disposal container for this space					

COMPARTMENT NAME:	Sewage Treatment Room
LOCATION:	24m Flat- Starboard Forward Column

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DIMENSIONS: 13m X 17m		MANNING: As Required			
POWER / FLUID / CONTROL LINES: 120v, 480v, drill water, pot water, hydraulics					
CONTROL SYSTEMS: Sewage treatment control panel on tank Cement Tank Gauging Systems Cement system pneumatic valves Rectifier Unit No. 2 Instrument Junction Box (IJB-068)					
HVAC / DUCTING: Ventilation					
PASSIVE FIRE PROTECTION:					
Deck: A-0		Deckhead: N/A			
Forward Bulkhead: A-0		Aft Bulkhead: A-0			
Port Bulkhead: A-0		Starboard Bulkhead: A-0			
Comments / Recommendations Overhead open to deck above (28.5m Flat) around Cement Tanks					
FIRE/GAS DETECTION:					
Constant Manning	<input type="checkbox"/>	Duct	Hydrocarbon Detector(s)	<input type="checkbox"/>	Duct
Flame Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>	H ₂ S Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>
Heat Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>	Other: _____	<input type="checkbox"/>	<input type="checkbox"/>
Smoke Detector(s)	<input checked="" type="checkbox"/>	<input type="checkbox"/>			
Comments / Recommendations Smoke Detector #ASH172E24					
FIRE FIGHTING EQUIPMENT:					
Dry Powder Extinguisher(s)	<input type="checkbox"/>	Space	CO ₂ Extinguisher(s)	<input checked="" type="checkbox"/>	Space
H ₂ O Extinguisher(s)	<input type="checkbox"/>	Adjacent	Foam Extinguisher(s)	<input type="checkbox"/>	Adjacent
Fixed H ₂ O (Deluge, Sprinklers, etc.)	<input type="checkbox"/>		Fire Water Hose(s)	<input type="checkbox"/>	
Fixed Halon	<input type="checkbox"/>		Fixed CO ₂	<input type="checkbox"/>	
Other: _____	<input type="checkbox"/>	<input type="checkbox"/>			
Comments / Recommendations CO ₂ Extinguisher #20 on Forward Bulkhead					
COMMUNICATIONS, ETC. :					
Telephone	<input type="checkbox"/>	CCTV	<input type="checkbox"/>	PA Speaker	<input checked="" type="checkbox"/>
Fire Alarm Button	<input checked="" type="checkbox"/>	Bilge Alarm	<input type="checkbox"/>	Emergency Lighting	<input checked="" type="checkbox"/>
GA Alarm Button	<input type="checkbox"/>	General Alarm	<input checked="" type="checkbox"/>	Other: _____	<input type="checkbox"/>
Comments / Recommendations Fire Alarm Button XS-172E03 next to Elevator Door					
ESCAPE ROUTES:					
Entrance to ladderway on aft side of central column					
Entrance to elevator on outboard side of central column					

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COMPARTMENT: Sewage treatment Room			
FIRE:			
Ignition Sources / Fuel		Preventions (Note EX equipment)	
Consequences		Mitigations	
Risk Rank:	Risk Category:	ALARP?: Yes / No	
EXPLOSION:			
Ignition Sources / Fuel		Preventions (Note EX equipment)	
Consequences		Mitigations	
Risk Rank:	Risk Category:	ALARP?: Yes / No	
FLOOD:			
Hazards		Preventions	
		Drains.	
Consequences		Mitigations	
Risk Rank:	Risk Category:	ALARP?: Yes / No	
OTHER: Biological, chemical			
Hazards		Preventions	
Exposure to pathogens Exposure to chemical		PPE	
Consequences		Mitigations	
Possibility of injury to personnel		availability of MSDS Availability of medical treatment	
Risk Rank: 9	Risk Category: Low	ALARP?: Yes	
RECOMMENDATIONS:			

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COMPARTMENT NAME: Shale Shaker House					
LOCATION: 2 nd Deck Aft of Moonpool					
DIMENSIONS: 29m X 7.5m Lower, Upper 19m X 3m			MANNING: As Required		
POWER / FLUID / CONTROL LINES: 120v, 480v, fire water, sea water, hp mud Pot water rig air					
CONTROL SYSTEMS: Shale Shaker control systems on aft bulkhead Gumbo Box Motor Control Switches					
HVAC / DUCTING: Ventilation fan and ducts Fire dampers (FD-58 & FD-59)					
PASSIVE FIRE PROTECTION:					
Deck: A-0		Deckhead: A-0			
Forward Bulkhead: A-0		Aft Bulkhead: A-0			
Port Bulkhead: A-0		Starboard Bulkhead: A-60			
Comments / Recommendations					
FIRE/GAS DETECTION:					
	Space	Duct		Space	Duct
Constant Manning	<input type="checkbox"/>		Hydrocarbon Detector(s)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Flame Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>	H ₂ S Detector(s)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Heat Detector(s)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Other: _____	<input type="checkbox"/>	<input type="checkbox"/>
Smoke Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>			
Comments / Recommendations Heat Detectors #TSH-172304 & TSH-172331 H ₂ S Detectors #TGD-172304LH & TGD-172315LH Combustible Gas Detectors #CGD-172304LH & CGD-172315LH					
FIRE FIGHTING EQUIPMENT:					
	Space	Adjacent		Space	Adjacent
Dry Powder Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>	CO ₂ Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>
H ₂ O Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>	Foam Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>
Fixed H ₂ O (Deluge, Sprinklers, etc.)	<input checked="" type="checkbox"/>		Fire Water Hose(s)	<input type="checkbox"/>	<input type="checkbox"/>
Fixed Halon	<input type="checkbox"/>		Fixed CO ₂	<input type="checkbox"/>	
Other: _____	<input type="checkbox"/>	<input type="checkbox"/>			
Comments / Recommendations					
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COMMUNICATIONS, ETC. :		
Telephone <input checked="" type="checkbox"/>	CCTV <input checked="" type="checkbox"/>	PA Speaker <input checked="" type="checkbox"/>
Fire Alarm Button <input type="checkbox"/>	Bilge Alarm <input type="checkbox"/>	Emergency Lighting <input checked="" type="checkbox"/>
GA Alarm Button <input type="checkbox"/>	General Alarm <input checked="" type="checkbox"/>	Other: <input type="checkbox"/>
Comments / Recommendations		
Telephone #144		
ESCAPE ROUTES:		
Primary: Exit aft onto Main Deck forward of the Riser Storage, then port or stbd.		
Alternate: Exit forward into Moonpool area, then to Main Deck.		
COMPARTMENT: Shale Shaker House		
FIRE:		
Ignition Sources / Fuel		Preventions (Note EX equipment)
Electric wiring /shorts		Preventive maintenance and inspections
Metal to metal contact		Well control procedures - gas handling
Gas from the well		
Consequences		Mitigations
Possibility of damage to equipment/compartment		Firefighting capabilities
Possibility of injury to personnel		Availability of medical treatment including medivac
Risk Rank: 9	Risk Category: Low	ALARP?: Yes
EXPLOSION:		
Ignition Sources / Fuel		Preventions (Note EX equipment)
Electric wiring /shorts		Preventive maintenance and inspections
Metal to metal contact		Well control procedures - gas handling
Gas from the well		
Consequences		Mitigations
Possibility of damage to equipment/compartment		Firefighting capabilities
Possibility of injury to personnel		Availability of medical treatment including medivac
Risk Rank: 9	Risk Category: Low	ALARP?: Yes
FLOOD:		
Hazards		Preventions
		Drains.
Consequences		Mitigations
Risk Rank:	Risk Category:	ALARP?: Yes / No
OTHER: Chemicals / environmental		
Hazards		Preventions

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Exposure to drilling mud Loss/ spill of drilling fluids/mud		PPE Preventive maintenance and inspections	
Consequences Possibility of injury to personnel Environmental impact		Mitigations Availability of MSDS/ medical treatment Eyewash station and emergency shower Spill response procedures	
Risk Rank: 20	Risk Category: High	ALARP?: Yes	
RECOMMENDATIONS: 			

COMPARTMENT NAME: Standby Generator Room																															
LOCATION: Port main deck, amidships																															
DIMENSIONS: 18x35x10 feet	MANNING: 0																														
POWER / FLUID / CONTROL LINES: 120v, 208v, 480v Lube oil storage tank Fuel oil storage tank Rig air, drill water and potable water																															
CONTROL SYSTEMS: Battery charger Buss tie Distribution panel Generator panel BOP UPS, IACS UPS																															
HVAC / DUCTING: Ventilation ducting, Fire dampers #47 and #48, Supply fan and damper controls outside space																															
PASSIVE FIRE PROTECTION: <table border="0" style="width: 100%;"> <tr> <td>Deck:</td> <td>A</td> <td>Deckhead:</td> <td>A</td> </tr> <tr> <td>Forward Bulkhead:</td> <td>A</td> <td>Aft Bulkhead:</td> <td>A</td> </tr> <tr> <td>Port Bulkhead:</td> <td>A</td> <td>Starboard Bulkhead:</td> <td>A-60</td> </tr> </table>		Deck:	A	Deckhead:	A	Forward Bulkhead:	A	Aft Bulkhead:	A	Port Bulkhead:	A	Starboard Bulkhead:	A-60																		
Deck:	A	Deckhead:	A																												
Forward Bulkhead:	A	Aft Bulkhead:	A																												
Port Bulkhead:	A	Starboard Bulkhead:	A-60																												
Comments / Recommendations Stbd bulkhead adjoining paint locker is A-60																															
FIRE/GAS DETECTION: <table border="0" style="width: 100%;"> <tr> <td></td> <td>Space</td> <td>Duct</td> <td></td> <td>Space</td> <td>Duct</td> </tr> <tr> <td>Constant Manning</td> <td><input type="checkbox"/></td> <td></td> <td>Hydrocarbon Detector(s)</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>Flame Detector(s)</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td>H₂S Detector(s)</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>Heat Detector(s)</td> <td><input checked="" type="checkbox"/></td> <td><input type="checkbox"/></td> <td>Other: _____</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>Smoke Detector(s)</td> <td><input checked="" type="checkbox"/></td> <td><input type="checkbox"/></td> <td></td> <td></td> <td></td> </tr> </table>			Space	Duct		Space	Duct	Constant Manning	<input type="checkbox"/>		Hydrocarbon Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>	Flame Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>	H ₂ S Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>	Heat Detector(s)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Other: _____	<input type="checkbox"/>	<input type="checkbox"/>	Smoke Detector(s)	<input checked="" type="checkbox"/>	<input type="checkbox"/>			
	Space	Duct		Space	Duct																										
Constant Manning	<input type="checkbox"/>		Hydrocarbon Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>																										
Flame Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>	H ₂ S Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>																										
Heat Detector(s)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Other: _____	<input type="checkbox"/>	<input type="checkbox"/>																										
Smoke Detector(s)	<input checked="" type="checkbox"/>	<input type="checkbox"/>																													
Comments / Recommendations ASH17233, TSH172313																															
FIRE FIGHTING EQUIPMENT: <table border="0" style="width: 100%;"> <tr> <td></td> <td>Space</td> <td>Adjacent</td> <td></td> <td>Space</td> <td>Adjacent</td> </tr> </table>			Space	Adjacent		Space	Adjacent																								
	Space	Adjacent		Space	Adjacent																										
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Dry Powder Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>	CO ₂ Extinguisher(s)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
H ₂ O Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>	Foam Extinguisher(s)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Fixed H ₂ O (Deluge, Sprinklers, etc.)	<input type="checkbox"/>		Fire Water Hose(s)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Fixed Halon	<input type="checkbox"/>		Fixed CO ₂	<input checked="" type="checkbox"/>	
Other: _____	<input type="checkbox"/>	<input type="checkbox"/>			

Comments / Recommendations
CO2 #146 & 147, Foam #146A

COMMUNICATIONS, ETC. :

Telephone <input checked="" type="checkbox"/>	CCTV <input type="checkbox"/>	PA Speaker <input checked="" type="checkbox"/>
Fire Alarm Button <input checked="" type="checkbox"/>	Bilge Alarm <input type="checkbox"/>	Emergency Lighting <input type="checkbox"/>
GA Alarm Button <input type="checkbox"/>	General Alarm <input checked="" type="checkbox"/>	Other: <input type="checkbox"/>

Comments / Recommendations

ESCAPE ROUTES:
One door to main deck

COMPARTMENT: Standby Generator Room

FIRE:

Ignition Sources / Fuel	Preventions (Note EX equipment)
Electric wiring/shorts Diesel, lube oil spontaneous combustion of oily rags, oil pads	Preventive maintenance and inspections Housekeeping Proper disposal of oily rags and pads
Consequences	Mitigations

Risk Rank:	Risk Category:	ALARP?: Yes / No
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EXPLOSION:


Ignition Sources / Fuel	Preventions (Note EX equipment)
Consequences	Mitigations

Risk Rank:	Risk Category:	ALARP?: Yes / No
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FLOOD:


Hazards	Preventions
	Drains.
Consequences	Mitigations

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Risk Rank:	Risk Category:	ALARP?: Yes / No	
OTHER: Electrical shock			
Hazards		Preventions	
Contact with live energy sources		Preventive maintenance and inspections PPE, PTW, energy isolation	
Consequences		Mitigations	
Possibility of injury to personnel Possibility of fatality		Availability of medical treatment including medivac	
Risk Rank: 15	Risk Category: Medium	ALARP?: Yes	
RECOMMENDATIONS:			
Consider the provision of an oily waste disposal container for this space			

COMPARTMENT NAME:		Subsea BOP Control Unit	
LOCATION:		3 rd Deck, Port side of moonpool	
DIMENSIONS: Approx. 5.5m x 11.5m		MANNING: Intermittent 0-2	
POWER / FLUID / CONTROL LINES:			
120v, 480V, rig air, Hydraulic tanks, pumps & piping, potable water.			
CONTROL SYSTEMS:			
BOP controls and BOP test unit.			
HVAC / DUCTING:			
Ventilation and ducting, Exhaust FD-38, Fire Zone 15			
PASSIVE FIRE PROTECTION:			
Deck:	A-0	Deckhead:	A-0
Forward Bulkhead:	A-0	Aft Bulkhead:	A-0
Port Bulkhead:	A-0	Starboard Bulkhead:	A-0
Comments / Recommendations			
The BOP control room is approx. 2m x 3m and is contained within this space.			
FIRE/GAS DETECTION:			
Constant Manning	Space <input type="checkbox"/>	Duct <input type="checkbox"/>	Hydrocarbon Detector(s) Space <input type="checkbox"/>
			Duct <input type="checkbox"/>
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Flame Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>	H ₂ S Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>
Heat Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>	Other: _____	<input type="checkbox"/>	<input type="checkbox"/>
Smoke Detector(s)	<input checked="" type="checkbox"/>	<input type="checkbox"/>			

Comments / Recommendations
ASH 172924, ASH 172927

FIRE FIGHTING EQUIPMENT:

	Space	Adjacent		Space	Adjacent
Dry Powder Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>	CO ₂ Extinguisher(s)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
H ₂ O Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>	Foam Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>
Fixed H ₂ O (Deluge, Sprinklers, etc.)	<input type="checkbox"/>		Fire Water Hose(s)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Fixed Halon	<input type="checkbox"/>		Fixed CO ₂	<input type="checkbox"/>	
Other: ___ Fire Axe	<input type="checkbox"/>	<input checked="" type="checkbox"/>			

Comments / Recommendations

COMMUNICATIONS, ETC. :

Telephone	<input checked="" type="checkbox"/>	CCTV	<input type="checkbox"/>	PA Speaker	<input checked="" type="checkbox"/>
Fire Alarm Button	<input type="checkbox"/>	Bilge Alarm	<input type="checkbox"/>	Emergency Lighting	<input checked="" type="checkbox"/>
GA Alarm Button	<input type="checkbox"/>	General Alarm	<input checked="" type="checkbox"/>	Other:	<input type="checkbox"/>

Comments / Recommendations

ESCAPE ROUTES:

Exit through the hatch into the moon pool then use the stairs to the main deck

COMPARTMENT: Subsea BOP Control Unit

FIRE:

Ignition Sources / Fuel		Preventions (Note EX equipment)	
Electric wiring/shorts Limited class A materials		Preventive maintenance and inspections	
Consequences		Mitigations	
Possibility of damage to equipment/compartament Possibility of injury to personnel BOP control possibly impacted		Firefighting capabilities Availability of medical treatment including medivac Alternate means of BOP control (ROV intervention)	
Risk Rank: 15	Risk Category: Medium	ALARP?: Yes	

EXPLOSION:

Ignition Sources / Fuel		Preventions (Note EX equipment)	
Consequences		Mitigations	

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Risk Rank:	Risk Category:	ALARP?: Yes / No
FLOOD:		
Hazards	Preventions	
	Drains.	
Consequences	Mitigations	
Risk Rank:	Risk Category:	ALARP?: Yes / No
OTHER:		
Hazards	Preventions	
Consequences	Mitigations	
Risk Rank:	Risk Category:	ALARP?: Yes / No
RECOMMENDATIONS:		

COMPARTMENT NAME:	Subsea Tree Assembly Room		
LOCATION:	Port side, Main deck		
DIMENSIONS:	22m x 12.5m x 17m h	MANNING:	intermittent
POWER / FLUID / CONTROL LINES:			
Hydraulic lines for casing conveyor, gantry crane, BOP test lines, Rig air, 120v service lines.			
CONTROL SYSTEMS:			
Controls for BOP test, Aux Drawworks, Gantry Crane, and BOP Trolley.			
HVAC / DUCTING:			
None			
PASSIVE FIRE PROTECTION:			
Deck: A-0		Deckhead:	
Forward Bulkhead:		Aft Bulkhead:	
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Port Bulkhead:	Starboard Bulkhead:
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Comments / Recommendations

FIRE/GAS DETECTION:					
	Space	Duct		Space	Duct
Constant Manning	<input type="checkbox"/>		Hydrocarbon Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>
Flame Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>	H ₂ S Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>
Heat Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>	Other: _____	<input type="checkbox"/>	<input type="checkbox"/>
Smoke Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>			

Comments / Recommendations

FIRE FIGHTING EQUIPMENT:					
	Space	Adjacent		Space	Adjacent
Dry Powder Extinguisher(s)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	CO ₂ Extinguisher(s)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
H ₂ O Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>	Foam Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>
Fixed H ₂ O (Deluge, Sprinklers, etc.)	<input type="checkbox"/>		Fire Water Hose(s)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Fixed Halon	<input type="checkbox"/>		Fixed CO ₂	<input type="checkbox"/>	
Other: _____	<input type="checkbox"/>	<input type="checkbox"/>			

Comments / Recommendations

COMMUNICATIONS, ETC. :					
Telephone	<input checked="" type="checkbox"/>	CCTV	<input type="checkbox"/>	PA Speaker	<input checked="" type="checkbox"/>
Fire Alarm Button	<input type="checkbox"/>	Bilge Alarm	<input type="checkbox"/>	Emergency Lighting	<input type="checkbox"/>
GA Alarm Button	<input checked="" type="checkbox"/>	General Alarm	<input checked="" type="checkbox"/>	Other: _____	<input type="checkbox"/>

Comments / Recommendations


ESCAPE ROUTES:
Door aft to main deck, door port fwd to main deck. The "garage doors" fwd and port are usually open.

COMPARTMENT: Subsea Tree Assembly Room

FIRE:		
Ignition Sources / Fuel	Preventions (Note EX equipment)	
Consequences	Mitigations	
Risk Rank:	Risk Category:	ALARP?: Yes / No

EXPLOSION:		
Ignition Sources / Fuel	Preventions (Note EX equipment)	

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Consequences		Mitigations	
Risk Rank:	Risk Category:	ALARP?: Yes / No	
FLOOD:			
Hazards		Preventions	
		Drains.	
Consequences		Mitigations	
Risk Rank:	Risk Category:	ALARP?: Yes / No	
OTHER: Environmental			
Hazards		Preventions	
Hydraulic leak		Preventive maintenance and inspections	
Consequences		Mitigations	
Possible environmental impact		Spill response procedures Use of environmentally friendly fluids	
Risk Rank: 9	Risk Category: Low	ALARP?: Yes	
RECOMMENDATIONS:			

COMPARTMENT NAME:	Subsea Workshop
LOCATION:	2 nd deck port side of moon pool
DIMENSIONS: 7.60m x 2.60m	MANNING: As Required
POWER / FLUID / CONTROL LINES:	
120v, pot water, drill water, fresh water, rig air	

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CONTROL SYSTEMS:

A/C unit for space located in electricians shop

HVAC / DUCTING:

Ventilation ducts

PASSIVE FIRE PROTECTION:

Deck:	A-0	Deckhead:	A-0
Forward	A-0	Aft Bulkhead:	A-0
Bulkhead:			
Port Bulkhead:	A-0	Starboard Bulkhead:	A-0

Comments / Recommendations

FIRE/GAS DETECTION:

	Space	Duct		Space	Duct
Constant Manning	<input type="checkbox"/>		Hydrocarbon Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>
Flame Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>	H ₂ S Detector(s)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Heat Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>	Other: _____	<input type="checkbox"/>	<input type="checkbox"/>
Smoke Detector(s)	<input checked="" type="checkbox"/>	<input type="checkbox"/>			

Comments / Recommendations

ASH 172923

FIRE FIGHTING EQUIPMENT:

	Space	Adjacent		Space	Adjacent
Dry Powder Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>	CO ₂ Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>
H ₂ O Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>	Foam Extinguisher(s)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Fixed H ₂ O (Deluge, Sprinklers, etc.)	<input type="checkbox"/>		Fire Water Hose(s)	<input type="checkbox"/>	<input type="checkbox"/>
Fixed Halon	<input type="checkbox"/>		Fixed CO ₂	<input type="checkbox"/>	
Other:	<input type="checkbox"/>	<input type="checkbox"/>			

Comments / Recommendations

COMMUNICATIONS, ETC. :

Telephone	<input checked="" type="checkbox"/>	CCTV	<input type="checkbox"/>	PA Speaker	<input type="checkbox"/>
Fire Alarm Button	<input type="checkbox"/>	Bilge Alarm	<input type="checkbox"/>	Emergency Lighting	<input checked="" type="checkbox"/>
GA Alarm Button	<input type="checkbox"/>	General Alarm	<input type="checkbox"/>	Other:	<input type="checkbox"/>

Comments / Recommendations

ESCAPE ROUTES:

Exiting through the door, take the first hatch exit on the right, This will take you out into the moon pool area, then follow the exit signs to the stbd side where the ladder way to the main deck is located

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APPENDIX III

COMPARTMENT: Subsea Workshop		
FIRE:		
Ignition Sources / Fuel Electric wiring/shorts Flammable aerosols	Preventions (Note EX equipment) Preventive maintenance and inspection Proper storage of flammables	
Consequences Possibility of damage to equipment/compartment Possibility of injury to personnel	Mitigations Firefighting capabilities Availability of medical treatment including medivac	
Risk Rank: 9	Risk Category: Low	ALARP?: Yes
EXPLOSION:		
Ignition Sources / Fuel	Preventions (Note EX equipment)	
Consequences	Mitigations	
Risk Rank:	Risk Category:	ALARP?: Yes / No
FLOOD:		
Hazards	Preventions Drains.	
Consequences	Mitigations	
Risk Rank:	Risk Category:	ALARP?: Yes / No
OTHER:		
Hazards	Preventions	
Consequences	Mitigations	
Risk Rank:	Risk Category:	ALARP?: Yes / No
RECOMMENDATIONS:		

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**MAJOR ACCIDENT HAZARD
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APPENDIX III

Consider the installation of an approved flammables storage locker for this space


COMPARTMENT NAME:		480V Switchboard Room (Port)			
LOCATION:		Centerline Aft 2 nd Deck, Forward of ECR			
DIMENSIONS:		8m X 9m	MANNING: As required		
POWER / FLUID / CONTROL LINES:					
120v, 208v, 230v, 480v Fire water					
CONTROL SYSTEMS:					
NDU A-3 (181037) Process Station #29 (181029) 480V Feeder Panels 120V Normal Power Panel (236047) 120V Standby Panel (236096)					
HVAC / DUCTING:					
Ventilation ducting Fire Dampers (FD-71, FD-72, FD-78, FD-79, FD-84, FD-86, FD-88)					
PASSIVE FIRE PROTECTION:					
Deck: A-60		Deckhead: A-60			
Forward Bulkhead: A-0		Aft Bulkhead: A-0			
Port Bulkhead: A-60		Starboard Bulkhead: A-60			
Comments / Recommendations					
FIRE/GAS DETECTION:					
	Space	Duct		Space	Duct
Constant Manning	<input type="checkbox"/>		Hydrocarbon Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>
Flame Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>	H ₂ S Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>
Heat Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>	Other: _____	<input type="checkbox"/>	<input type="checkbox"/>
Smoke Detector(s)	<input checked="" type="checkbox"/>	<input type="checkbox"/>			
Comments / Recommendations					
Smoke Detector #ASH-172523					
FIRE FIGHTING EQUIPMENT:					
	Space	Adjacent		Space	Adjacent
Dry Powder Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>	CO ₂ Extinguisher(s)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
H ₂ O Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>	Foam Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>
Fixed H ₂ O (Deluge, Sprinklers, etc.)	<input type="checkbox"/>		Fire Water Hose(s)	<input type="checkbox"/>	<input type="checkbox"/>
Fixed Halon	<input type="checkbox"/>		Fixed CO ₂	<input checked="" type="checkbox"/>	
Other: _____	<input type="checkbox"/>	<input type="checkbox"/>			
Comments / Recommendations					

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COMMUNICATIONS, ETC. :		
Telephone <input checked="" type="checkbox"/>	CCTV <input type="checkbox"/>	PA Speaker <input checked="" type="checkbox"/>
Fire Alarm Button <input type="checkbox"/>	Bilge Alarm <input type="checkbox"/>	Emergency Lighting <input checked="" type="checkbox"/>
GA Alarm Button <input type="checkbox"/>	General Alarm <input checked="" type="checkbox"/>	Other: <input type="checkbox"/>
Comments / Recommendations		
Telephone #271		
ESCAPE ROUTES:		
Primary: Exit Stbd to Passageway, then aft to ECR		
Alternate: Exit aft to 11kV Switchboard Room (Port)		
COMPARTMENT: 480v Switchboard Room Port		
FIRE:		
Ignition Sources / Fuel		Preventions (Note EX equipment)
Electric wiring/shorts		Preventive maintenance and inspections
Consequences		Mitigations
Possibility of damage to equipment compartment		Firefighting capabilities
Possibility of injury to personnel		Availability of medical treatment including medivac
Risk Rank: 15	Risk Category: Medium	ALARP?: Yes
EXPLOSION:		
Ignition Sources / Fuel		Preventions (Note EX equipment)
Consequences		Mitigations
Risk Rank:	Risk Category:	ALARP?: Yes / No
FLOOD:		
Hazards		Preventions
		Drains.
Consequences		Mitigations
Risk Rank:	Risk Category:	ALARP?: Yes / No
OTHER: Electrical shock		
Hazards		Preventions

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Contact with live energy sources	Preventive maintenance and inspections PPE, PTW, energy isolation
Consequences	Mitigations
Possibility of injury to personnel Possibility of fatality	Availability of high voltage PPE Availability of medical treatment including medivac
Risk Rank: 15	Risk Category: Medium
ALARP?: Yes	
RECOMMENDATIONS:	
Consider the provision of high voltage PPE for this space	

COMPARTMENT NAME:	Thruster 5 lower space		
LOCATION:	Stbd aft pontoon, 0 level		
DIMENSIONS:	11m X 9m	MANNING:	As Required
POWER / FLUID / CONTROL LINES:			
120v, 480v, 11kv Sea water, hydraulic fluid, lube oil, rig air			
CONTROL SYSTEMS:			
Bilge sump pump no. 11, SW Service pump no 7, Thruster SW cooling pump no 5, Lube oil drain pump Thruster azimuth gear, thruster shaft			
HVAC / DUCTING:			
One fire damper near bottom of hull, fwd inboard tag no XV-172344. If this is closed, so must be the upper thruster space fire damper no. XV-172343 since the deckhead is open to the upper space.			
PASSIVE FIRE PROTECTION:			
Deck:	A-0	Deckhead:	C
Forward Bulkhead:	A-0	Aft Bulkhead:	A-0
Port Bulkhead:	A-0	Starboard Bulkhead:	A-0
Comments / Recommendations (Find out what's on the other side of the bulkheads in this space)			
FIRE/GAS DETECTION:			
	Space	Duct	
Constant Manning	<input type="checkbox"/>		Hydrocarbon Detector(s)
Flame Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>	H ₂ S Detector(s)
Heat Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>	Other: _____
Smoke Detector(s)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Comments / Recommendations Smoke Detector: ASH-172D11			
FIRE FIGHTING EQUIPMENT:			
	Space	Adjacent	
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Dry Powder Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>	CO ₂ Extinguisher(s)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
H ₂ O Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>	Foam Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>
Fixed H ₂ O (Deluge, Sprinklers, etc.)	<input type="checkbox"/>		Fire Water Hose(s)	<input type="checkbox"/>	<input type="checkbox"/>
Fixed Halon	<input type="checkbox"/>		Fixed CO ₂ on thruster motor	<input checked="" type="checkbox"/>	
Other:	<input type="checkbox"/>	<input type="checkbox"/>			

Comments / Recommendations

Fire ext : no. 12

COMMUNICATIONS, ETC. :

Telephone	<input checked="" type="checkbox"/>	CCTV	<input checked="" type="checkbox"/>	PA Speaker	<input checked="" type="checkbox"/>
Fire Alarm Button	<input type="checkbox"/>	Bilge Alarm	<input type="checkbox"/>	Emergency Lighting	<input checked="" type="checkbox"/>
GA Alarm Button	<input type="checkbox"/>	General Alarm	<input type="checkbox"/>	Other: Toxic/Combustible gas alarm buttons.	<input type="checkbox"/>

Comments / Recommendations

PA Speaker: SPK-174428

ESCAPE ROUTES:

Only one route: Use ladder at outboard bulkhead, then exit through forward bulkhead watertight door.

COMPARTMENT: Thruster 5 lower space

FIRE:

Ignition Sources / Fuel	Preventions (Note EX equipment)
Electric wiring /shorts Pumps/motor overheating Lube oil, hydraulic oil	Preventive maintenance and inspections Housekeeping Monitoring of equipment
Consequences	Mitigations
Possibility of damage to equipment /compartment Thruster 5 inoperable; loss of positioning redundancy Possibility of injury to personnel	Firefighting capabilities Fixed CO ₂ system for thruster motor. Remote ventilation shutdown Availability of medical treatment including medivac

Risk Rank: 9	Risk Category: Low	ALARP?: Yes
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EXPLOSION:


Ignition Sources / Fuel	Preventions (Note EX equipment)
Electric wiring /shorts Pumps/motor overheating Lube oil, hydraulic oil	Preventive maintenance and inspections Housekeeping Monitoring of equipment
Consequences	Mitigations
Possibility of damage to equipment /compartment Thruster 5 inoperable; loss of positioning redundancy Possibility of injury to personnel	Firefighting capabilities Fixed CO ₂ system for thruster motor. Remote ventilation shutdown Availability of medical treatment including medivac

Risk Rank: 9	Risk Category: Low	ALARP?: Yes
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FLOOD:

Hazards	Preventions
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Thruster Seals Salt water piping		Routine inspection of space and thruster components and remote monitoring of equipment.	
Consequences		Mitigations	
Thruster 5 inoperable; loss of positioning redundancy		Sump pump	
Risk Rank: 15	Risk Category: Medium	ALARP?: Yes	
OTHER: Electrical shock			
Hazards		Preventions	
Contact with live energy sources		PTW, energy isolation, PPE Preventive maintenance and inspections	
Consequences		Mitigations	
Possibility of injury to personnel Possibility of fatality		Availability of medical treatment including medivac	
Risk Rank: 15	Risk Category: Medium	ALARP?: Yes	
RECOMMENDATIONS:			
Consider extending the ladder from the lower space so that it extends above the deck in the upper space so hook up can be made more safely.			

COMPARTMENT NAME: Thruster #5: Upper Space	
LOCATION: Stbd Aft pontoon, 5.1m level	
DIMENSIONS: 11m X 9m	MANNING: As-required
POWER / FLUID / CONTROL LINES:	
120v, 480v, 11kv Fresh water, sea water, rig air, hydraulic lines	
CONTROL SYSTEMS:	
Hydraulic Power Packs: For azimuth steering. Shut off located near unit on aft bulkhead. Thruster Motor: Thruster Fresh Water cooling pump no. 5 Thruster air brake panel Thruster jacking tubes (for strand jacks/ lowering of thrusters) 480V receptacle switch: Located aft bulkhead, inboard behind thruster motor.	
HVAC / DUCTING:	
One fire damper XV:172343, enters space over watertight door. Refer drawing: HRBS-H68-000-H1010	
PASSIVE FIRE PROTECTION:	
Deck: C	Deckhead: A-0
Forward Bulkhead: A-0	Aft Bulkhead: A-0
Port Bulkhead: A-0	Starboard Bulkhead: A-0

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Comments / Recommendations

Note: 01/17/02 Refrigerant tanks are stacked against the aft bulkhead in the 5.1m vestibule. The other side of this bulkhead in the thruster 5 forward bulkhead. Danger of explosion of pressure vessels by conduction through Thruster 5 upper space fwd bulkhead.

FIRE/GAS DETECTION:

	Space	Duct		Space	Duct
Constant Manning	<input type="checkbox"/>		Hydrocarbon Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>
Flame Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>	H ₂ S Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>
Heat Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>	Other: _____	<input type="checkbox"/>	<input type="checkbox"/>
Smoke Detector(s)	<input checked="" type="checkbox"/>	<input type="checkbox"/>			

Comments / Recommendations

Smoke detector: ASH-172D10

FIRE FIGHTING EQUIPMENT:

	Space	Adjacent		Space	Adjacent
Dry Powder Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>	CO ₂ Extinguisher(s)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
H ₂ O Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>	Foam Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>
Fixed H ₂ O (Deluge, Sprinklers, etc.)	<input type="checkbox"/>		Fire Water Hose(s)	<input type="checkbox"/>	<input type="checkbox"/>
Fixed Halon	<input type="checkbox"/>		Fixed CO ₂	<input checked="" type="checkbox"/>	
Other: _____	<input type="checkbox"/>	<input type="checkbox"/>			

Comments / Recommendations

Fixed CO₂ services Thruster motor. It is activated at the bottle, located aft bulkhead behind thruster motor. The CO₂ extinguisher is located on the ladder railing to the lower thruster space. Fire ext. is number 42

COMMUNICATIONS, ETC. :

Telephone	<input type="checkbox"/>	CCTV	<input type="checkbox"/>	PA Speaker	<input checked="" type="checkbox"/>
Fire Alarm Button	<input type="checkbox"/>	Bilge Alarm	<input type="checkbox"/>	Emergency Lighting	<input checked="" type="checkbox"/>
GA Alarm Button	<input type="checkbox"/>	General Alarm	<input type="checkbox"/>	Other: Toxic/Combustible gas alarm buttons.	<input type="checkbox"/>

Comments / Recommendations

Manual call pt: XS-172D09Speaker: SPK-174427

ESCAPE ROUTES:

The only escape route from the thruster space is through the upper space watertight door, fwd bulkhead

COMPARTMENT: Thruster #5 Upper Space


FIRE:

Ignition Sources / Fuel	Preventions (Note EX equipment)
Electric wiring/shorts Hydraulic fluid	Preventive maintenance and inspections
Consequences	Mitigations
Possibility of damage to equipment /compartment. Thruster 5 inoperable; loss of positioning redundancy Possibility of injury to personnel	Firefighting capabilities. Fixed CO ₂ extinguisher for thruster motor. Availability of medical treatment including medivac
Risk Rank: 9	Risk Category: Low
	ALARP?: Yes

EXPLOSION:


Ignition Sources / Fuel	Preventions (Note EX equipment)
Consequences	Mitigations

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Risk Rank:	Risk Category:	ALARP?: Yes / No	
FLOOD:			
Hazards		Preventions	
SW piping failure. Sea chest to skin valve, cooling piping, ballast tank lines, etc.		Preventive maintenance and inspections	
Consequences		Mitigations	
Thruster 5 inoperable; loss of positioning redundancy		Sump pump in lower thruster space.	
Risk Rank: 15	Risk Category: Medium	ALARP?: Yes	
OTHER: Struck by/caught between			
Hazards		Preventions	
Sliding watertight door		Audible and visual alarms on operation Training in operation of doors Restricted access	
Consequences		Mitigations	
Possibility of injury to personnel Possibility of fatality		Remote indication for doors Notification to CCR when entering space Availability of medical treatment including medivac	
Risk Rank: 15	Risk Category: Medium	ALARP?: Yes	
RECOMMENDATIONS:			

COMPARTMENT NAME:	Transformer Room Stbd		
LOCATION:	2 nd deck, stbd accommodation, outboard of Dry Store		
DIMENSIONS:	Approx. 5m x 3m	MANNING:	0
POWER / FLUID / CONTROL LINES:			
Rig air, Power Cables for 11kV and 480V transformers			
CONTROL SYSTEMS:			
Controls for Transformers, lighting and power breaker panels, local damper controls.			
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HVAC / DUCTING:
Ventilation ducts Fire Dampers FD-38 & FD-39, Fire Zone #10

PASSIVE FIRE PROTECTION:			
Deck:	A-0	Deckhead:	A-0
Forward Bulkhead:	A-0	Aft Bulkhead:	A-0
Port Bulkhead:	A-0	Starboard Bulkhead:	B-30

Comments / Recommendations

FIRE/GAS DETECTION:					
	Space	Duct		Space	Duct
Constant Manning	<input type="checkbox"/>		Hydrocarbon Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>
Flame Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>	H ₂ S Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>
Heat Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>	Other: _____	<input type="checkbox"/>	<input type="checkbox"/>
Smoke Detector(s)	<input checked="" type="checkbox"/>	<input type="checkbox"/>			

Comments / Recommendations
Smoke Detectors #ASH-172604 & ASH-172605

FIRE FIGHTING EQUIPMENT:					
	Space	Adjacent		Space	Adjacent
Dry Powder Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>	CO ₂ Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>
H ₂ O Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>	Foam Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>
Fixed H ₂ O (Deluge, Sprinklers, etc.)	<input type="checkbox"/>		Fire Water Hose(s)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Fixed Halon	<input type="checkbox"/>		Fixed CO ₂	<input type="checkbox"/>	
Other: _____	<input type="checkbox"/>	<input type="checkbox"/>			

Comments / Recommendations

COMMUNICATIONS, ETC. :					
Telephone	<input type="checkbox"/>	CCTV	<input type="checkbox"/>	PA Speaker	<input type="checkbox"/>
Fire Alarm Button	<input type="checkbox"/>	Bilge Alarm	<input type="checkbox"/>	Emergency Lighting	<input type="checkbox"/>
GA Alarm Button	<input type="checkbox"/>	General Alarm	<input type="checkbox"/>	Other: _____	<input type="checkbox"/>

Comments / Recommendations

ESCAPE ROUTES:
Fwd door leads directly to fwd lifeboat deck.

COMPARTMENT: Transformer Room Stbd	
FIRE:	
Ignition Sources / Fuel	Preventions (Note EX equipment)
Electric wiring/shorts	Preventive maintenance and inspections
Consequences	Mitigations
Possibility of damage to equipment/compartments	Firefighting capabilities
Possibility of injury to personnel	Availability of medical treatment including medivac


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Risk Rank: 13	Risk Category: Medium	ALARP?: Yes
EXPLOSION:		
Ignition Sources / Fuel		Preventions (<i>Note EX equipment</i>)
Consequences		Mitigations
Risk Rank:	Risk Category:	ALARP?: Yes / No
FLOOD:		
Hazards		Preventions
		Drains.
Consequences		Mitigations
Risk Rank:	Risk Category:	ALARP?: Yes / No
OTHER: Electrical shock		
Hazards		Preventions
Contact with live energy sources		Preventive maintenance and inspections PPE, PTW, energy isolation
Consequences		Mitigations
Possibility of injury to personnel Possibility of fatality		Availability of high voltage PPE Availability of medical treatment including medivac
Risk Rank: 15	Risk Category: Medium	ALARP?: Yes
RECOMMENDATIONS:		
Consider providing high voltage PPE for this space. Also consider the placement of a sign detailing the steps to take in an electrical shock situation		


COMPARTMENT NAME:	No. 4 Upper and Lower Pump Room
LOCATION:	Port Forward Column

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DIMENSIONS: 564.5 m3		MANNING: As required	
POWER / FLUID / CONTROL LINES:			
120v, 480v, seawater, ballast bilge Drill water, hydraulic rig air			
CONTROL SYSTEMS:			
Sea Water Service Pump Number 3 (Lower) (Feeds Seawater and Fire System). Ballast Pump No. 1 (Lower) Stripping Pump No. 1 (Upper) Bilge Pump No. 1 / Sump Pump No. 1			
HVAC / DUCTING:			
Supply Fan SF-35 Inlet Valves XV 172313 (From #7 Upper Thr. Elec. Rm) / XV 172316 (From #7 Lower Thr. Room) Exhaust Fan EF-43 Exhaust Duct Valves XV 172314 (To #7 Upper Thr. Elec. Rm) Number 7 Upper Thruster Room contains PAC-13&14 Air Conditioning Unit which recirculates the air utilizing the above supply and exhaust fans.			
PASSIVE FIRE PROTECTION:			
Deck:	A-0	Deckhead:	C
Forward Bulkhead:	A-0	Aft Bulkhead:	A-0
Port Bulkhead:	A-0	Starboard Bulkhead:	A-0
Comments / Recommendations			
Space is open to 28.5 m flat at penetration of Bulk Tanks and Piping. Column Outer Belt surrounds the lower 2 meters of the space, then serves as outer hull. Deck is tank top for potable water and base oil tanks.			
FIRE/GAS DETECTION:			
	Space	Duct	
Constant Manning	<input type="checkbox"/>		Hydrocarbon Detector(s) <input type="checkbox"/>
Flame Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>	H ₂ S Detector(s) <input type="checkbox"/>
Heat Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>	Other: <input type="checkbox"/>
Smoke Detector(s)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Comments / Recommendations			
FIRE FIGHTING EQUIPMENT:			
	Space	Adjacent	
Dry Powder Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>	CO ₂ Extinguisher(s) <input checked="" type="checkbox"/>
H ₂ O Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>	Foam Extinguisher(s) <input type="checkbox"/>
Fixed H ₂ O (Deluge, Sprinklers, etc.)	<input type="checkbox"/>		Fire Water Hose(s) <input checked="" type="checkbox"/>
Fixed Halon	<input type="checkbox"/>		Fixed CO ₂ <input type="checkbox"/>
Other:	<input type="checkbox"/>	<input type="checkbox"/>	
Comments / Recommendations			
COMMUNICATIONS, ETC. :			
Telephone	<input checked="" type="checkbox"/>	CCTV	<input checked="" type="checkbox"/>
Fire Alarm Button XS172C08	<input checked="" type="checkbox"/>	Bilge Alarm	<input checked="" type="checkbox"/>
GA Alarm Button	<input type="checkbox"/>	General Alarm	<input checked="" type="checkbox"/>
			PA Speaker <input checked="" type="checkbox"/>
			Emergency Lighting <input checked="" type="checkbox"/>
			Other: -
Comments / Recommendations			
No sound powered phone in ballast pump room.			
ESCAPE ROUTES: water tight door to stairwell to decks above at upper level of the pump room. Possible to pass from forward column to after column by passage through pontoon and Number 7 Thruster Room through water tight door in lower level of the pump room.			

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COMPARTMENT: Number 4 Upper and Lower Pump Room		
FIRE:		
Ignition Sources / Fuel	Preventions (Note EX equipment)	
Electric motors overheating Electric wiring /shorts Hydraulic fluid	Preventive maintenance and inspection Housekeeping	
Consequences	Mitigations	
Bilge Fire / Possible loss of pump room. Possibility of injury to personnel	Firefighting capabilities Availability of medical treatment including medivac	
Risk Rank: 9	Risk Category: Low	ALARP?: Yes
EXPLOSION:		
Ignition Sources / Fuel	Preventions (Note EX equipment)	
N/A		
Consequences	Mitigations	
Risk Rank:	Risk Category:	ALARP?: Yes / No
FLOOD:		
Hazards	Preventions	
Line rupture / valve failure	Preventive maintenance and inspections	
Consequences	Mitigations	
Flood to next level. Extreme flooding would cause loss of ballast pumps in one quadrant and valve indication. Effect on stability.	CCTV, ballast and bilge capabilities Training in damage scenarios	
Risk Rank: 9	Risk Category: Low	ALARP?: Yes
OTHER:		
Hazards	Preventions	
Sliding watertight door	Audible and visual alarms on operation Training in operation of doors Restricted access	
Consequences	Mitigations	
Possibility of injury to personnel Possibility of fatality	Remote indication for doors Notification to CCR when entering space Availability of medical treatment including medivac	
Risk Rank: 15	Risk Category: Medium	ALARP?: Yes

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RECOMMENDATIONS:

COMPARTMENT NAME:	Warehouse		
LOCATION:	3 rd deck stbd mid		
DIMENSIONS:	10m x 27m	MANNING:	1 man
POWER / FLUID / CONTROL LINES:			
120v, 480v, drill water, sea water, rig air, diesel			

CONTROL SYSTEMS:

HVAC / DUCTING:
Fire dampers #46 and #39,

PASSIVE FIRE PROTECTION:			
Deck:	A-0	Deckhead:	A-0
Forward Bulkhead:	A-0	Aft Bulkhead:	A-0
Port Bulkhead:	A-0	Starboard Bulkhead:	A-0

Comments / Recommendations

FIRE/GAS DETECTION:					
	Space	Duct		Space	Duct
Constant Manning	<input checked="" type="checkbox"/>		Hydrocarbon Detector(s)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Flame Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>	H ₂ S Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>
Heat Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>	Other: _____	<input type="checkbox"/>	<input type="checkbox"/>
Smoke Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>			


Comments / Recommendations

FIRE FIGHTING EQUIPMENT:					
	Space	Adjacent		Space	Adjacent
Dry Powder Extinguisher(s)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	CO ₂ Extinguisher(s)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
H ₂ O Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>	Foam Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>
Fixed H ₂ O (Deluge, Sprinklers, etc.)	<input type="checkbox"/>		Fire Water Hose(s)	<input type="checkbox"/>	<input type="checkbox"/>
Fixed Halon	<input type="checkbox"/>		Fixed CO ₂	<input type="checkbox"/>	
Other: _____	<input type="checkbox"/>	<input type="checkbox"/>			

Comments / Recommendations

COMMUNICATIONS, ETC. :					
Telephone	<input checked="" type="checkbox"/>	CCTV	<input type="checkbox"/>	PA Speaker	<input checked="" type="checkbox"/>
Fire Alarm Button	<input type="checkbox"/>	Bilge Alarm	<input type="checkbox"/>	Emergency Lighting	<input checked="" type="checkbox"/>

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GA Alarm Button <input type="checkbox"/>	General Alarm <input checked="" type="checkbox"/>	Other: <input type="checkbox"/>
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Comments / Recommendations

ESCAPE ROUTES:
When leaving the space, take a right, go through the accommodations following the exit signs which will lead you outside underneath the fwd lifeboat station. Take ladder way to lifeboat station

COMPARTMENT: Warehouse

FIRE:

Ignition Sources / Fuel	Preventions (Note EX equipment)
Electric wiring/shorts Class A materials Flammable aerosols/ greases, solvents, etc	Preventive maintenance and inspections Housekeeping Proper storage of flammables

Consequences	Mitigations
Possibility of loss of inventory/damage to compartment Possibility of injury to personnel	Firefighting capabilities Availability of medical treatment including medivac

Risk Rank: 15	Risk Category: Medium	ALARP?: Yes
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EXPLOSION:

Ignition Sources / Fuel	Preventions (Note EX equipment)

Consequences	Mitigations

Risk Rank:	Risk Category:	ALARP?: Yes / No
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FLOOD:

Hazards	Preventions
	Drains.

Consequences	Mitigations

Risk Rank:	Risk Category:	ALARP?: Yes / No
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OTHER:

Hazards	Preventions

Consequences	Mitigations

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Risk Rank:		Risk Category:	ALARP?: Yes / No
RECOMMENDATIONS:			

COMPARTMENT NAME:		Watermaker Room #2 Port (typical)					
LOCATION:		3 rd deck aft, behind engine room #2					
DIMENSIONS: Approx. 8.5m x 4m		MANNING: 0					
POWER / FLUID / CONTROL LINES: 120v, 11kv, sea water, air, fresh water oil							
CONTROL SYSTEMS: Controls for the jacket water preheater, #2 eng MCC transformer controls and start air compressor.							
HVAC / DUCTING: Fire zone 26							
PASSIVE FIRE PROTECTION:							
Deck:	A-0	Deckhead:	A-60				
Forward Bulkhead:	None	Aft Bulkhead:	A-0				
Port Bulkhead:	A-60	Starboard Bulkhead:	A-60				
Comments / Recommendations Forward end of space is open to engine room #2							
FIRE/GAS DETECTION:							
Constant Manning	<input type="checkbox"/>	Duct	<input type="checkbox"/>	Hydrocarbon Detector(s)	<input type="checkbox"/>	Duct	<input type="checkbox"/>
Flame Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	H ₂ S Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Heat Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Other: _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Smoke Detector(s)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
Comments / Recommendations ASH 172909							
FIRE FIGHTING EQUIPMENT:							
Dry Powder Extinguisher(s)	<input type="checkbox"/>	Space	<input type="checkbox"/>	CO ₂ Extinguisher(s)	<input checked="" type="checkbox"/>	Space	<input checked="" type="checkbox"/>
H ₂ O Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Foam Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Fixed H ₂ O (Deluge, Sprinklers, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Fire Water Hose(s)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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Fixed Halon	<input type="checkbox"/>	<input type="checkbox"/>	Fixed CO ₂	<input checked="" type="checkbox"/>	
Other:	<input type="checkbox"/>	<input type="checkbox"/>			
Comments / Recommendations					
COMMUNICATIONS, ETC. :					
Telephone	<input checked="" type="checkbox"/>	CCTV	<input type="checkbox"/>	PA Speaker	<input checked="" type="checkbox"/>
Fire Alarm Button	<input checked="" type="checkbox"/>	Bilge Alarm	<input type="checkbox"/>	Emergency Lighting	<input checked="" type="checkbox"/>
GA Alarm Button	<input type="checkbox"/>	General Alarm	<input checked="" type="checkbox"/>	Other: sound powered telephone	<input checked="" type="checkbox"/>
Comments / Recommendations					
ESCAPE ROUTES:					
Out port side door to ER 1, fwd to spiral stairway to 2 nd deck in ER 1, aft through door, stairway to main deck.					
COMPARTMENT: Watermaker Room					
FIRE:					
Ignition Sources / Fuel		Preventions (Note EX equipment)			
Electric wiring/shorts Lube oil		Preventive maintenance and inspections Housekeeping			
Consequences		Mitigations			
Possibility of damage to equipment Possibility of injury to personnel		Firefighting capabilities Availability of medical treatment including medivac			
Risk Rank: 9	Risk Category: Low		ALARP?: Yes		
EXPLOSION:					
Ignition Sources / Fuel		Preventions (Note EX equipment)			
Consequences		Mitigations			
Risk Rank:	Risk Category:		ALARP?: Yes / No		
FLOOD:					
Hazards		Preventions			
		Drains.			
Consequences		Mitigations			

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Risk Rank:	Risk Category:	ALARP?: Yes / No
OTHER: Chemicals, burns, electrical shock		
Hazards		Preventions
Exposure to hot surfaces		PPE
Exposure to chemicals		PTW, energy isolation
Exposure to live energy sources		
Consequences		Mitigations
Possibility of injury to personnel		Availability of MSDS
Possibility of fatality		Availability of medical treatment including medivac
Risk Rank: 15	Risk Category: Medium	ALARP?: Yes
RECOMMENDATIONS:		

COMPARTMENT NAME: Welding Shop																									
LOCATION: Second Deck, Port Side, Frame 6 to 9.2																									
DIMENSIONS: 27.7' x 22.5' x 11.5'	MANNING: 1																								
POWER / FLUID / CONTROL LINES:																									
120v, 480v, diesel oxygen & acetylene, lube oil rig air																									
CONTROL SYSTEMS:																									
Four Welding Machines control all welding outlets.																									
HVAC / DUCTING:																									
Exhaust vent (2630cfm) dedicated to space with fusible linked fire damper, Supply vent (2937cfm) routed from Machine shop. Fuel Oil Room – Exhaust (6138cfm) and Natural Vent ducting pass through space with fusible linked fire damper in weld shop.																									
PASSIVE FIRE PROTECTION:																									
Deck: C	Deckhead: C																								
Forward Bulkhead: A-0	Aft Bulkhead: A-60																								
Port Bulkhead: C	Starboard Bulkhead: A-0																								
Comments / Recommendations																									
Forward bulkhead does not meet the requirements of A-0 class. There are open cableways, openings around doorframe and monorail penetration does not seal. Should be re-classed C.																									
FIRE/GAS DETECTION:																									
	<table border="1"> <thead> <tr> <th></th> <th>Space</th> <th>Duct</th> <th></th> <th>Space</th> <th>Duct</th> </tr> </thead> <tbody> <tr> <td>Constant Manning</td> <td><input type="checkbox"/></td> <td></td> <td>Hydrocarbon Detector(s)</td> <td><input checked="" type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>Flame Detector(s)</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td>H₂S Detector(s)</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>Heat Detector(s)</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td>Other: _____</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> </tbody> </table>		Space	Duct		Space	Duct	Constant Manning	<input type="checkbox"/>		Hydrocarbon Detector(s)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Flame Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>	H ₂ S Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>	Heat Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>	Other: _____	<input type="checkbox"/>	<input type="checkbox"/>
	Space	Duct		Space	Duct																				
Constant Manning	<input type="checkbox"/>		Hydrocarbon Detector(s)	<input checked="" type="checkbox"/>	<input type="checkbox"/>																				
Flame Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>	H ₂ S Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>																				
Heat Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>	Other: _____	<input type="checkbox"/>	<input type="checkbox"/>																				
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Smoke Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>			
Comments / Recommendations					

FIRE FIGHTING EQUIPMENT:					
	Space	Adjacent		Space	Adjacent
Dry Powder Extinguisher(s)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	CO ₂ Extinguisher(s)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
H ₂ O Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>	Foam Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>
Fixed H ₂ O (Deluge, Sprinklers, etc.)	<input type="checkbox"/>		Fire Water Hose(s)	<input type="checkbox"/>	<input type="checkbox"/>
Fixed Halon	<input type="checkbox"/>		Fixed CO ₂	<input type="checkbox"/>	
Other: Fusible link in exhaust vent	<input checked="" type="checkbox"/>	<input type="checkbox"/>			
Comments / Recommendations					
Dry powder extinguisher is in Passageway outside Mechanic Shop/Port Auxiliary Machinery Room. CO2 extinguisher is in #1 Engine Room outside Weld Shop.					

COMMUNICATIONS, ETC. :					
Telephone	<input checked="" type="checkbox"/>	CCTV	<input type="checkbox"/>	PA Speaker	<input checked="" type="checkbox"/>
Fire Alarm Button	<input checked="" type="checkbox"/>	Bilge Alarm	<input type="checkbox"/>	Emergency Lighting	<input checked="" type="checkbox"/>
GA Alarm Button	<input type="checkbox"/>	General Alarm	<input type="checkbox"/>	Other:	<input type="checkbox"/>
Comments / Recommendations					

ESCAPE ROUTES:					
Primary: stbd into Port Auxiliary Machinery Room, fwd into Passageway, up stairs to main deck.					
Alternate: aft into #1 Engine Room, aft into Vestibule, up stairs to main deck.					
Alternate: fwd into Machine Shop, fwd into Mechanic Shop, stbd into Passageway, up stairs to main deck.					

COMPARTMENT: Welding Shop					
FIRE:					
Ignition Sources / Fuel			Preventions (Note EX equipment)		
Welding, grinding, torch cutting. Flammable liquid, Oxygen and Acetylene.			Flammable liquid lines are seal welded at joints. Oxygen and Acetylene lines are high pressure stainless which are seal welded at joints and flashback preventers are installed.		
Consequences			Mitigations		
Possibility of damage to equipment/compartments Possibility of injury to personnel			Firefighting capabilities Availability of medical treatment including medivac		
Risk Rank:	9	Risk Category:	Low	ALARP?:	Yes

EXPLOSION:					
Ignition Sources / Fuel			Preventions (Note EX equipment)		
None					
Consequences			Mitigations		


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MAJOR ACCIDENT HAZARD
RISK ASSESSMENT
DEEPWATER HORIZON

APPENDIX III

Risk Rank:	Risk Category:	ALARP?: Yes / No	
FLOOD:			
Hazards		Preventions	
Firemain piping		Piping is well maintained and monitored for leaks	
Consequences		Mitigations	
Damage to machinery within weld shop and progressive damage as flooding moves to other spaces.		Isolation of firemain system and electrical isolation.	
Risk Rank: 1	Risk Category: Low	ALARP?: Yes	
OTHER: Electrical shock, burns			
Hazards		Preventions	
Contact with live energy sources Contact with hot surfaces		Preventive maintenance and inspections PPE, PTW, energy isolation	
Consequences		Mitigations	
Possibility of injury to personnel Possibility of fatality		Availability of medical treatment including medivac	
Risk Rank: 15	Risk Category: Medium	ALARP?: Yes	
RECOMMENDATIONS:			
COMPARTMENT NAME: 24.0 m Flat			
LOCATION: Port Forward Column			
DIMENSIONS: 1752 m3		MANNING: None	
POWER / FLUID / CONTROL LINES:			
Hull tank vents and sounding tubes. Bulk, pot water, hydraulic fluid, base oil and rig air			
CONTROL SYSTEMS:			
Potable water: UV Sterilizer, De-chlorinating Unit, Pressure Set Pump, Hot Water Heater.			
HVAC / DUCTING:			
Supply Fan SF-34 Inlet Valves XV 172303 Exhaust Fan EF-34 Exhaust Duct Valves XV 172304			
PASSIVE FIRE PROTECTION:			
Deck: C		Deckhead: A-0	
Forward Bulkhead: A-0		Aft Bulkhead: A-0	
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Port Bulkhead: A-0	Starboard Bulkhead: A-0
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Comments / Recommendations

Space is open to 28.5 m flat at penetration of Bulk Tanks and Piping. Column Outer Belt surrounds the lower 2 meters of the space, then serves as outer hull. Deck is tank top for potable water and base oil tanks.

FIRE/GAS DETECTION:

	Space	Duct		Space	Duct
Constant Manning	<input type="checkbox"/>		Hydrocarbon Detector(s)	<input type="checkbox"/>	
Flame Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>	H ₂ S Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>
Heat Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>	Other: _____	<input type="checkbox"/>	<input type="checkbox"/>
Smoke Detector(s)	<input checked="" type="checkbox"/>	<input type="checkbox"/>			

Comments / Recommendations
FIRE FIGHTING EQUIPMENT:

	Space	Adjacent		Space	Adjacent
Dry Powder Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>	CO ₂ Extinguisher(s)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
H ₂ O Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>	Foam Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>
Fixed H ₂ O (Deluge, Sprinklers, etc.)	<input type="checkbox"/>		Fire Water Hose(s)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Fixed Halon	<input type="checkbox"/>		Fixed CO ₂	<input type="checkbox"/>	
Other: _____	<input type="checkbox"/>	<input type="checkbox"/>			

Comments / Recommendations
COMMUNICATIONS, ETC. :

Telephone	<input type="checkbox"/>	CCTV	<input type="checkbox"/>	PA Speaker	<input checked="" type="checkbox"/>
Fire Alarm Button	<input checked="" type="checkbox"/>	Bilge Alarm	<input checked="" type="checkbox"/>	Emergency Lighting	<input type="checkbox"/>
GA Alarm Button	<input type="checkbox"/>	General Alarm	<input checked="" type="checkbox"/>	Other: _____	<input type="checkbox"/>

Comments / Recommendations

No telephone at this level. Level often used for confined space entry platform for tanks.

ESCAPE ROUTES:

Through water tight door to stairwell to decks above or decks below. Possible to pass from forward column to after column by passage through pontoon.

COMPARTMENT: 24.0 m Flat
FIRE:
Ignition Sources / Fuel

Electric wiring/shorts

Preventions (Note EX equipment)

Preventive maintenance and inspections

Consequences

Possibility of damage to equipment
Possibility of injury to personnel

Mitigations

Firefighting capabilities
Availability of medical treatment including medivac


Risk Rank: 9

Risk Category: Low

ALARP?: Yes

EXPLOSION:
Ignition Sources / Fuel
Preventions (Note EX equipment)

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Consequences			Mitigations		
Risk Rank:	Risk Category:		ALARP?: Yes / No		
FLOOD:					
Hazards			Preventions		
Potable water line rupture..			Preventive maintenance and inspections		
Consequences			Mitigations		
Flood to next level. Extreme flooding would cause loss of control of ballast and ventilation in port forward quadrant. effect on stability			Ballast and bilge capabilities Training in damage scenarios		
Risk Rank: 9	Risk Category: Low		ALARP?: Yes		
OTHER: Chemicals, burns					
Hazards			Preventions		
Exposure to hot surfaces Exposure to chemicals			PPE		
Consequences			Mitigations		
Possibility of injury to personnel			Availability of MSDS Availability of medical treatment		
Risk Rank: 9	Risk Category: Low		ALARP?: Yes		
RECOMMENDATIONS:					
COMPARTMENT NAME: 28.5 m Flat					
LOCATION: Port Forward Column					
DIMENSIONS: 1752 m3			MANNING: None		
POWER / FLUID / CONTROL LINES:					
120v, fire water, hydraulic lines, barite, rig air, vent lines, pot water					

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**MAJOR ACCIDENT HAZARD
RISK ASSESSMENT
DEEPWATER HORIZON**

APPENDIX III

CONTROL SYSTEMS:

Hydraulic Power Units for Ballast and Ventilation System for the Port Forward Column and Pontoon.
Solenoid valve cabinet for the ballast and ventilation valves in Port Forward Column and Pontoon.
No. 8 Expansion Tank and Gravity Tank. Battery Box 181022-1. Emergency Ballast Control Station 21A, Emergency Bilge Control Station 21, Process Station 22, NDU A-2 181036, Vent lines and sounding tubes for port forward quadrant tanks and voids.

HVAC / DUCTING:

Supply Fan SF-34 Inlet Valves XV 172301 / XV172373
Exhaust Fan EF-34 Exhaust Duct Valves XV 172302 / XV 172374

PASSIVE FIRE PROTECTION:

Deck:	C	Deckhead:	A-0
Forward Bulkhead:	Outer Hull	Aft Bulkhead:	Outer Hull
Port Bulkhead:	Outer Hull	Starboard Bulkhead:	Outer Hull

Comments / Recommendations

Space is open to 24.0 m flat at penetration of Bulk Tanks and Piping

FIRE/GAS DETECTION:

	Space	Duct		Space	Duct
Constant Manning	<input type="checkbox"/>		Hydrocarbon Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>
Flame Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>	H ₂ S Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>
Heat Detector(s)	<input type="checkbox"/>	<input type="checkbox"/>	Other: _____	<input type="checkbox"/>	<input type="checkbox"/>
Smoke Detector(s)	<input checked="" type="checkbox"/>	<input type="checkbox"/>			

Comments / Recommendations

FIRE FIGHTING EQUIPMENT:

	Space	Adjacent		Space	Adjacent
Dry Powder Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>	CO ₂ Extinguisher(s)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
H ₂ O Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>	Foam Extinguisher(s)	<input type="checkbox"/>	<input type="checkbox"/>
Fixed H ₂ O (Deluge, Sprinklers, etc.)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Fire Water Hose(s)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Fixed Halon	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Fixed CO ₂	<input type="checkbox"/>	
Other: _____	<input type="checkbox"/>	<input type="checkbox"/>			

Comments / Recommendations

COMMUNICATIONS, ETC. :

Telephone	<input checked="" type="checkbox"/>	CCTV	<input type="checkbox"/>	PA Speaker	<input checked="" type="checkbox"/>
Fire Alarm Button	<input checked="" type="checkbox"/>	Bilge Alarm	<input type="checkbox"/>	Emergency Lighting	<input checked="" type="checkbox"/>
GA Alarm Button	<input type="checkbox"/>	General Alarm	<input checked="" type="checkbox"/>	Other: <u>Soundpowered Phone</u>	<input checked="" type="checkbox"/>

Comments / Recommendations

ESCAPE ROUTES:

Through water tight door to stairwell to decks above or decks below. Possible to pass from forward column to after column by passage through pontoon.

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COMPARTMENT: 28.5 m Flat
FIRE:
Ignition Sources / Fuel

Electric wiring /shorts
Electric motors
Solenoid cabinet
Hydraulic fluid

Preventions (Note EX equipment)

Preventive maintenance and inspections
Housekeeping

Consequences

Possibility of damage to equipment Loss of remote control of ballast and ventilation valves in the port forward quadrant.
Possibility of injury to personnel

Mitigations

Firefighting capabilities
Availability of medical treatment including medivac

Risk Rank: 9

Risk Category: Low

ALARP?: Yes

EXPLOSION:
Ignition Sources / Fuel

N/A

Preventions (Note EX equipment)
Consequences
Mitigations

Risk Rank:

Risk Category:

ALARP?: Yes / No

FLOOD:
Hazards

Potable water line rupture. Flooding from collision.

Preventions

24.0 m level has bilge alarms.

Consequences

Flood to next level. Extreme flooding would cause loss of control of ballast and ventilation in port forward quadrant.

Mitigations

Risk Rank: 9

Risk Category: Low

ALARP?: Yes

OTHER:
Hazards
Preventions
Consequences
Mitigations

Risk Rank:

Risk Category:

ALARP?: Yes / No

RECOMMENDATIONS:

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**MAJOR ACCIDENT HAZARD
RISK ASSESSMENT
DEEPWATER HORIZON**

APPENDIX IV

**INSTALLATION PERSPECTIVE
RISK ANALYSIS TABLES**

 Transocean	MAJOR ACCIDENT HAZARD RISK ASSESSMENT DEEPWATER HORIZON	APPENDIX IV

HAZARDS	CONSEQUENCES	PREVENTIONS	MITIGATIONS	RISK RANKING			RECOMMENDATIONS / COMMENTS
				S	L	RR	

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HAZARDS	CONSEQUENCES	PREVENTIONS	MITIGATIONS	RISK RANKING			RECOMMENDATIONS / COMMENTS
				S	L	RR	
Collision of vessel into rig (on location or during rig move)	Major structural damage. Possible loss of station Possible well control situation. Possible environmental impact Possible loss of stability. Possible fire. Possible personnel injury or death Suspension of operations	Watchkeeping CPA alarm on Radar. Ability to communicate with other vessels including use of pyrotechnics and emergency signaling devices Possible use of OSV to contact approaching vessel Ability to shut in well disconnect and move off location Rig lighting (obstruction lights and normal lighting) Offboard CCTV. Rig move notifications and navigation alerts Inspection and maintenance of OSV mooring systems OSV watchkeeping procedures OSV maintenance and inspection procedures	Compartmentalization / watertight integrity Training in damage and emergency response scenarios. Ballast and bilge systems. Availability of medical treatment including medivac Ability to evacuate to rig. Spill response procedures	5	C	23	This hazard has a high ranking but it is considered that all reasonable preventions and mitigations are in place.
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HAZARDS	CONSEQUENCES	PREVENTIONS	MITIGATIONS	RISK RANKING			RECOMMENDATIONS / COMMENTS
				S	L	RR	
Helicopter collision (other than Helideck)	Possible personnel injury or death. Possible fire and explosion. Possible structural damage. Possible well control situation. Possible environmental impact. Suspension of operations	Rig lighting Ability to turn vessel to facilitate helicopter operations. Communication of weather conditions to incoming aircraft	Training in emergency and damage scenarios Firefighting capabilities including ability to turn rig to facilitate fire fighting operations. Availability of medical treatment including medivac Ability to evacuate rig. Ability to shut in the well, disconnect and move off location if necessary Compartmentalization And watertight integrity Spill response procedures Announcement of ETA	5	A	16	

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MAJOR ACCIDENT HAZARD
RISK ASSESSMENT
DEEPWATER HORIZON

APPENDIX IV

HAZARDS	CONSEQUENCES	PREVENTIONS	MITIGATIONS	RISK RANKING			RECOMMENDATIONS / COMMENTS
				S	L	RR	
Helicopter collision at helideck	Structural damage to rig Possibility of fire and explosion Possible injury to personnel Possible fatalities Possible environmental impact Possible loss of station keeping	Obstruction lights Helideck lighting Communication of weather conditions to incoming aircraft Procedures to check helideck for debris before landing Helideck ops under direction of HLO	Training in emergency / damage scenarios Availability of medical treatment Restricted access during landings and take-offs Announcement of ETA Emergency spill response Redundant controls (DP3 classification)	5	A	16	

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HAZARDS	CONSEQUENCES	PREVENTIONS	MITIGATIONS	RISK RANKING			RECOMMENDATIONS / COMMENTS
				S	L	RR	
Reservoir blowout (at Drill Floor)	Major environmental impact Multiple personnel injuries and/or fatalities. Major structural damage and possible loss of vessel.	Well control procedures and training of drill crew in well control Maintenance and testing of BOP's and other subsea and well control equipment Instrumentation and indication of well status. Hydrocarbon / Combustible Gas detection system. Redundant BOP controls.	Emergency response procedure, training and drills. Ability to move off station. Firefighting capabilities Ability to evacuate the rig. Availability of medical treatment including medivac Redundant BOP controls. Passive fire protection in highly populated areas of vessel. EX rated equipment to prevent ignition of blowout.	5	B	17	

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HAZARDS	CONSEQUENCES	PREVENTIONS	MITIGATIONS	RISK RANKING			RECOMMENDATIONS / COMMENTS
				S	L	RR	
Shallow gas blowout (subsea)	Major environmental impact Multiple personnel injuries and/or fatalities. Possible loss of stability Possible structural damage	Seismic evaluation. Drilling pilot holes. History of wells in same field. Monitoring with ROV. Bubble watch.	Shallow gas drills Training in emergency / damage scenarios Availability of kill mud Ability to move off station. Availability of medical treatment including medivac Firefighting capabilities Ability to evacuate the rig. Compartmentalization and watertight integrity Spill response procedures	5	A	16	
Gas in riser	Possible ignition at surface with fire and or explosion Possible major structural damage Possible loss of riser Possible environmental impact Possible injury to personnel Possible fatalities	Good drilling practices Instrumentation and indication of well status Subsea isolation equipment Training in well control including required drills	Utilization of diverter system Ability to evacuate the rig Firefighting capabilities Availability of medical treatment including medivac Emergency spill response	5	B	17	

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HAZARDS	CONSEQUENCES	PREVENTIONS	MITIGATIONS	RISK RANKING			RECOMMENDATIONS / COMMENTS
				S	L	RR	
Toxic gas release (H2S)	Environmental impact Possible ignition of gas cloud. Multiple personnel injuries and/or fatalities. Structural / equipment damage due to H2S embrittlement.	History of wells in same field. Monitoring of well Policies and procedures (prevent bringing H2S to surface). H2S detectors placed strategically on rig for early detection Ability to secure the well	Training in emergency / damage scenarios. Ability to change rig heading and blowers to prevent gas buildup. Ability to shut in well, disconnect and move off location Firefighting capabilities Availability of medical treatment including medivac Ability to evacuate the rig. Use of degassers Support of H2S safety specialist in known or suspected H2S zones (training and equipment such as extra SCBA's and cascade systems for work on rig floor	5	B	17	

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RISK ASSESSMENT
DEEPWATER HORIZON

APPENDIX IV

HAZARDS	CONSEQUENCES	PREVENTIONS	MITIGATIONS	RISK RANKING			RECOMMENDATIONS / COMMENTS
				S	L	RR	
Major structural failure (fatigue).	Multiple personnel injuries and/or fatalities. Possible fire and explosion. Possible well control situation. Possible environmental impact	Preventive maintenance and inspections including class and regulatory Proper ballasting and deck loading procedures Stability and load calculations Corrosion control	Compartmentalization and watertight integrity Training in emergency / damage scenarios Availability of medical treatment including medivac Spill response procedures Ballast and bilge capabilities Ability to shut in well, disconnect and move off location Firefighting capabilities	5	A	16	

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HAZARDS	CONSEQUENCES	PREVENTIONS	MITIGATIONS	RISK RANKING			RECOMMENDATIONS / COMMENTS
				S	L	RR	
Severe weather including eddy currents	<p>Possible personnel injury or fatality.</p> <p>Possible man overboard.</p> <p>Suspension of operations</p> <p>Possible structural damage.</p> <p>Possible damage to subsea riser and equipment.</p> <p>Possible inability for medivac or evacuation</p> <p>Possible environmental impact</p> <p>Possible loss of station keeping</p>	<p>Forecasting</p> <p>Avoidance of severe weather when moving the rig</p> <p>Utilization of survival draft</p> <p>Ability to shut in the well, disconnect and hang off</p> <p>Eddy current watch and report</p> <p>Restriction of access to decks during severe weather</p> <p>Utilization of 5 phase hurricane procedures</p>	<p>Compartmentalization and watertight integrity</p> <p>Training in emergency / damage scenarios including emergency ballast drills</p> <p>Availability of medical treatment including medivac.</p> <p>Utilization of 5 phase hurricane procedures</p> <p>Spill response procedures</p> <p>Ability to evacuate</p> <p>Emergency notifications (USCG, etc.)</p> <p>Emergency disconnect</p>	5	C	23	This hazard has a high ranking but it is considered that all reasonable preventions and mitigations are in place.
Loss of station keeping ability (due to power loss, loss of GPS, etc.)	<p>Possible well control situation</p> <p>Possible environmental impact</p> <p>Damage to equipment</p> <p>Possibility of injury to personnel</p>	<p>Redundancy in equipment (DP3 classification)</p> <p>Zone alarms</p> <p>Training of marine personnel</p> <p>Inspections and preventive maintenance</p>	<p>Training in emergency / damage scenarios</p> <p>Ability to shut in well and disconnect</p> <p>Emergency notifications</p> <p>Spill response procedures</p> <p>Availability of medical treatment including medivac</p>	5	B	17	

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HAZARDS	CONSEQUENCES	PREVENTIONS	MITIGATIONS	RISK RANKING			RECOMMENDATIONS / COMMENTS
				S	L	RR	
Storage/use of radioactive material.	Possible personnel injury. Possible environmental impact.	Only on board when required. OIM notified when radioactive sources are brought on board Stored in isolated area with proper containment and appropriate markings. Only handled by qualified personnel.	Availability of medical treatment	1	A	1	
Storage /use of explosive material.	Possible personnel injury. Possible environmental impact. Possible equipment damage.	Procedures (Radio silence when appropriate). Only on board when required. OIM notified when explosive materials are brought on board Stored in isolated area with proper containment and appropriate markings. Only handled by qualified personnel.	Availability of medical treatment including medivac	5	A	16	

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HAZARDS	CONSEQUENCES	PREVENTIONS	MITIGATIONS	RISK RANKING				RECOMMENDATIONS / COMMENTS
				S	L	RR		
Dropped or fallen objects.	Possible personnel injury or death. Possible damage to vessel structure and/or equipment. Possible damage to subsea structure and/or equipment. Possible damage to supply boats. Possible environmental impact Possible well control situation	Preventive maintenance, inspections and certification of lifting devices (cranes, tuggers, chain hoists, etc.) and lifting gear including regulatory, class and third party inspections Only approved spares used in repair of lifting devices Restriction of crane use to certified designated personnel Inspection and certification of padeyes Inspection of lifting eyes on equipment such as pumps Procedure to suspend loads over water as long as possible when offloading/backloading boats	Training in emergency / damage scenarios Availability of medical treatment including medivac Ballast and deballast systems to stabilized rig. Well control procedures Spill response procedures Rig can be moved off for heavy lifts if/when necessary Communications and barricades to restrict access to area where lifts Are being made or overhead work is planned	4	C	20		This hazard has a high ranking but it is considered that all reasonable preventions and mitigations are in place.
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HAZARDS	CONSEQUENCES	PREVENTIONS	MITIGATIONS	RISK RANKING			RECOMMENDATIONS / COMMENTS
				S	L	RR	
Dropped or fallen objects. (continued)	Possible personnel injury or death. Possible damage to vessel structure and/or equipment. Possible damage to subsea structure and/or equipment. Possible damage to supply boats. Possible environmental impact Possible well control situation	Inspection of equipment /cargo being offloaded and/or backloaded Space audits. Derrick inspections. Dropped object campaign. Use of secondary securing on equipment where required Safe work practices including use of lanyards and securing for tools equipment and parts when working at heights Proper function of load indication on lifting devices and proper manifesting of cargo Proper function of securing devices such as fingerboard fingers, clamps, dogs, etc.	Training in emergency / damage scenarios Availability of medical treatment including medivac Ballast and bilge systems to stabilize rig. Well control procedures Spill response procedures Rig can be moved off for heavy lifts if/when necessary Communications and barricades to restrict access to area where lifts Are being made or overhead work is planned	4	C	20	

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HAZARDS	CONSEQUENCES	PREVENTIONS	MITIGATIONS	RISK RANKING			RECOMMENDATIONS / COMMENTS
				S	L	RR	
Major fire and/or explosion (well test facility).	Possible personnel injury or death. Possible damage to vessel structure and/or equipment. Possible environmental impact. Suspension of operations. Possible loss of station keeping ability. Possible damage to well.	Constant monitoring during operation. Risk analyses done throughout design, construction, and installation phases. Policies and procedures. Other work on stand-by during well test work.	Emergency response procedures, training and drills. Automatic shutdown systems (ESD). Flame detection. Fire suppression system (monitors, deluge, etc.) Hospital on board. Medivac capability. Deluge system on nearby helifuel station.	5	A	16	

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**MAJOR ACCIDENT HAZARD
RISK ASSESSMENT
DEEPWATER HORIZON**

APPENDIX V

**SYSTEM PERSPECTIVE
RISK ANALYSIS TABLES**

HAZARDS	CONSEQUENCES	PREVENTIONS	MITIGATIONS	RISK RANKING			RECOMMENDATIONS / COMMENTS
				S	L	RR	
SYSTEM: FIRE AND GAS DETECTION AND ALARMS							
Loss of one operator station	Loss of some redundancy but no immediate consequence	Preventive maintenance and testing.	Redundancy in operator stations Multiple fire and gas matrices	1	B	2	
Loss of multiple operator stations	Loss of some redundancy but no loss of detection and alarm capabilities	Preventive maintenance and testing. Dual 24V DC backup power supplies. Control Room constantly manned.	Redundancy in operator stations Multiple fire and gas matrices	1	B	2	
Loss of all operator stations	Loss of ability to pinpoint location of alarm	Preventive maintenance and testing.	Redundant fire and gas matrices Location can be called in to CCR	1	A	1	
Loss of one PCU	No immediate consequence other than loss of redundancy	Preventive maintenance and testing	Redundant fire and gas detection/alarm systems Constant monitoring CCR manned by 2 personnel /24 hrs	1	B	2	
Loss of both PCU's	Loss of main fire and gas system	Preventive maintenance and testing	Redundant fire and gas detection/alarm systems Constant monitoring CCR manned by 2 personnel /24 hrs	1	B	2	

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HAZARDS	CONSEQUENCES	PREVENTIONS	MITIGATIONS	RISK RANKING				RECOMMENDATIONS / COMMENTS
				S	L	RR		
Loss of termination boards	Loss of SVC	Preventive maintenance, inspections and testing	Redundant fire and gas detection systems	1	B	2		
Loss of Akusta alarm station/system	Loss of audible alarms	Preventive maintenance, inspections and testing	Light beacons Redundant alarms and communication of situation	2	A	5		
Loss of UPS	Loss of some redundancy	Preventive maintenance, inspections and testing	Redundant UPS systems	3	B	9		
Loss of fire central	Loss of SVC	Preventive maintenance, inspections and testing	Redundant system, SSS is stand alone	2	A	5		

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HAZARDS	CONSEQUENCES	PREVENTIONS	MITIGATIONS	RISK RANKING			RECOMMENDATIONS / COMMENTS
				S	L	RR	
Interconnect Cabling broken or otherwise unable to pass information.	Loss of fire detection loop (multiple detectors) or string Loss of gas detection loop (single detector) or string	Proper installation and protection of cables	Fault indication at Fire and Gas Panel (open and short circuit). Troubleshoot and repair / replace as necessary. Use of fire watch. Portable gas detection.	1	A	1	
Malfunction/loss single sensor,	Loss of detection capability for single space	Preventive maintenance and inspections 90 day testing	Fault alarms at the operator stations Repair or replace.	1	E	10	
Loss of multiple sensors	Loss of detection capability for affected spaces	Preventive maintenance and inspections 90 day testing	Fault alarms at the operator stations Repair or replace.	1	E	10	

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HAZARDS	CONSEQUENCES	PREVENTIONS	MITIGATIONS	RISK RANKING			RECOMMENDATIONS / COMMENTS
				S	L	RR	
SYSTEM: TELEPHONE ,PA, GENERAL ALARM SYSTEM							
Failure of main Telephone board	Loss of telephone system.	Preventive maintenance and inspections	Redundancy in means of communication i.e. soundpowered phones, vhf, etc.	2	B	6	
			Redundancy in means of communication i.e. soundpowered phones, vhf, etc.	1	B	2	
Failure of telephone cabling (breakage, grounding)	Loss of single phone or possible loss of multiple phones.	Preventive maintenance and inspections	Redundant systems of communication in various area Availability of spares	1	E	10	
Loss of Loss of both Akusta PA systems.	Loss of PA alarms and beacons	Preventive maintenance and inspections	Redundant means of communication Spare parts on board.	1	B	2	
Loss of PA wiring or loss of single speaker.	Loss of PA ability and loss of all alarms to single loop or single speaker.	Preventive maintenance and inspections	Telephone paging. Spare parts on board.	1	D	4	
SYSTEM: DRILLER'S ECHO SYSTEM							

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HAZARDS	CONSEQUENCES	PREVENTIONS	MITIGATIONS	RISK RANKING			RECOMMENDATIONS / COMMENTS
				S	L	RR	
Talkback system failure	Loss of direct communication with derrick, moonpool monkeyboard, racker, BOP control, etc.	Preventive maintenance and inspections	Redundant means of communications in various spaces	1	E	10	
SYSTEM: MARISAT, Satellite phone system, GlobalSat, VHF, SSB, GMDSS, Digital Link, Cap Rock							
Loss of single means of communication	Loss of some redundancy depending on equipment/system lost	Preventive maintenance and inspections including radio survey for class	Redundancy in communications systems Repair / replace.	1	E	10	Radio comms equipment installed in accordance with all governing bodies, regulatory agencies and recommended practices Vhf transceivers with separate power supplies installed on bridge, ECR, OIM office, driller's work station, cranes and lifeboats plus hand held

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HAZARDS	CONSEQUENCES	PREVENTIONS	MITIGATIONS	RISK RANKING			RECOMMENDATIONS / COMMENTS
				S	L	RR	
SYSTEM: BALLAST/BILGE SYSTEM (EQUIPMENT)							
Loss of power for hydraulics for any quadrant	Temporary loss of main ballast capability.	Preventive maintenance and inspections	Use of handpump for valve operations	2	B	6	
	Sea chest valves close and all transfer ceases.						
	Failsafe						
Broken or leaking pipe in ballast system.	Possible flooding.	Preventive maintenance. Ultrasound and NDT of piping. Corrosion control (anodes, etc.).	Ability to isolate, replace and repair. Compartmentalization Damage stability training. Bilge and bilge alarms. CCTV	2	B	6	
	Possible loss of stability.						
	Possible reduction of ballasting ability.						

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HAZARDS	CONSEQUENCES	PREVENTIONS	MITIGATIONS	RISK RANKING			RECOMMENDATIONS / COMMENTS
				S	L	RR	
Valve failure (other than skin valves).	Possible flooding. Possible loss of stability. Possible reduction of ballasting ability.	Preventive maintenance and inspections.	Spare parts on board. Ability to isolate and replace all valves except skin valves. Daily checks of spaces. Bilge and bilge alarms CCTV.	1	B	2	
Sea chest valve.	Possible flooding Possible loss of stability. Possible reduction of ballasting ability.	Preventive maintenance and inspections.	Spare parts on board. Ability to isolate and replace all valves except skin valves. Daily checks of spaces. Bilge and bilge alarms CCTV.	2	A	5	
Ballast pump failure. (single pump)	No immediate consequence Loss of redundancy	Preventive maintenance and inspections.	Redundant pumps. Spares on board.	1	B	2	One ballast pump and one stripping pump in each pump room Eight sea water service pumps (2 each pompom) can be utilized for ballast service Each pump can draw suction from every tank Ballast also inter connected with drill water system

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HAZARDS	CONSEQUENCES	PREVENTIONS	MITIGATIONS	RISK RANKING			RECOMMENDATIONS / COMMENTS
				S	L	RR	
Loss of multiple pumps	Loss of redundancy	Preventive maintenance and inspections.	Redundant pumps. Spares on board.	1	B	2	
Bilge pump failure	No immediate consequence Loss of redundancy	Preventive maintenance and inspections	Redundant pumps Ability to effect repairs	1	B	2	
SYSTEM: BALLAST/BILGE CONTROL SYSTEM INCLUDING TANK LEVEL INDICATION							
Power failure / Blackout	Possible loss of ability to function Ballast System.	Preventive maintenance and inspections	Ability to manually actuate valves Training in emergency ballast scenarios	1	C	3	
Loss of one operator station in CCR	No immediate consequence Loss of some redundancy	Preventive maintenance and inspections	Redundant stations in CCR, ECR And columns for each quadrant	1	B	2	
Loss of multiple operator stations in CCR	Loss of some redundancy	Preventive maintenance and inspections	Redundant stations in ECR and columns Training in emergency scenarios	2	B	6	Control can be switched to ECR /emergency stations or taken by ECR/ emergency stations upon total loss of CCR control

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HAZARDS	CONSEQUENCES	PREVENTIONS	MITIGATIONS	RISK RANKING			RECOMMENDATIONS / COMMENTS
				S	L	RR	
Level indication failure. Single tank	Lack of remote readout of tank levels	Preventive maintenance and inspections	Possibility of switching tanks used for ballasting Ability to sound tanks manually. Monitoring of amperage while pumping	1	D	4	
Actuator failure (including wiring).	Inability to remotely actuate valve.	Preventive maintenance and inspections	Ability to manually actuate valve.	1	C	3	

HAZARDS	CONSEQUENCES	PREVENTIONS	MITIGATIONS	RISK RANKING			RECOMMENDATIONS / COMMENTS
				S	L	RR	
SYSTEM: POWER GENERATION							

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HAZARDS	CONSEQUENCES	PREVENTIONS	MITIGATIONS	RISK RANKING				RECOMMENDATIONS / COMMENTS
				S	L	RR		
Loss of single engine.	Can be of no immediate consequence depending on power requirements Loss of some redundancy.	Preventive maintenance and inspections Continuous monitoring.	Redundant engines.	1	C	3		
Loss of single generator.	No immediate consequence depending on power requirements Loss of some redundancy.	Preventive maintenance and inspections Continuous monitoring.	Redundant generators	1	C	3		
Loss multiple engines/ generators	Possible loss of all main power Possible loss of station keeping depending on weather/currents Shut down drilling Possible well control incident Possible environmental impact	Preventive maintenance and inspections Continuous monitoring.	Multiple redundant engines. Phase back drilling. UPS Redundant power sources for various equipment Spill response procedures Ability to shut in the well	5	B	17		

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HAZARDS	CONSEQUENCES	PREVENTIONS	MITIGATIONS	RISK RANKING			RECOMMENDATIONS / COMMENTS
				S	L	RR	
Loss of all engines or generators.	Loss of all main power Possible loss of station keeping depending on weather/currents Shut down drilling Possible well control incident Possible environmental impact	Preventive maintenance and inspections Continuous monitoring.	Blackout start Redundant power sources for various systems and equipment Spill response procedures ability to shut in the well	3	C	13	Upon loss of all main engines the standby generator provides power for the auxiliaries needed to bring the engines back on line
SYSTEM: POWER MANAGEMENT/DISTRIBUTION							
Loss of single generator breaker.	No immediate consequence. Loss of some redundancy.	Preventive maintenance and inspections Continuous monitoring.	Redundant engines /generators.	1	C	3	
Loss of multiple Generator Breakers.	Possible loss of all power.	Preventive maintenance and inspections Continuous monitoring.	Redundant generators. Phase back drilling UPS available.	5	B	17	Depending on power requirements, a loss can lead to a cascade effect whereby all power is lost
Loss of single 11kv breaker to transformer	Momentary power loss to half of rig	Preventive maintenance and inspections Monitoring	Repair/replace breaker Ability to bypass - redirect power as required	2	B	6	

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HAZARDS	CONSEQUENCES	PREVENTIONS	MITIGATIONS	RISK RANKING			RECOMMENDATIONS / COMMENTS
				S	L	RR	
Loss of multiple transformers	Possible shutdown of drilling Possible loss of station keeping Possible environmental impact	Preventive maintenance and inspections Continuous monitoring of transformers	Phase back of drilling Ability to effect repairs Ability to shut in the well Spill response procedures Training in emergency scenarios - constant manning in CCR Monitoring of power systems	3	B	9	

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HAZARDS	CONSEQUENCES	PREVENTIONS	MITIGATIONS	RISK RANKING			RECOMMENDATIONS / COMMENTS
				S	L	RR	
SYSTEM: ENGINE COOLING – HEAT EXCHANGERS/RADIATORS							
Failure of heat exchanger	No immediate consequence	Preventive maintenance and inspections	Redundant exchangers Ability to effect repairs	5	B	17	A cascade effect can take place depending on power requirements
Failure of all heat exchangers	Reduced engine-cooling capability. Possible loss of engine cooling capability.	Preventive maintenance and inspections	Ability to effect repairs	5	A	16	
Pipe /valve failure. one engine	Loss of engine cooling and loss of power from affected engine	Preventive maintenance and inspections including ultrasound and NDT for pipes	Ability to isolate affected engine. Ability to effect repairs.	1	E	10	
SYSTEM: SALT WATER SERVICE							
Failure of single pump	No immediate consequence.	Preventive maintenance and inspections	Redundant pumps Spares on board. Ability to effect repairs	1	C	3	
Failure of multiple	Partial or total loss of salt water service	Preventive maintenance and inspections	Redundant pumps Spares on board ability to effect repairs	2	C	7	

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HAZARDS	CONSEQUENCES	PREVENTIONS	MITIGATIONS	RISK RANKING			RECOMMENDATIONS / COMMENTS
				S	L	RR	
Failure of all pumps	Total loss of salt water service	Preventive maintenance and inspections	Ability to use the standby generator Availability of spares and ability to effect repairs	5	A	16	
Pipe failure (main line).	Flooding. Possible stability issue. Partial or total loss of salt water service depending on location of break	Preventive maintenance and inspections including ultrasound and NDT	Ability to isolate and feed from other SW Service pump.	1	C	3	
Valve failure.	Partial loss of salt water depending on location of valve	Preventive maintenance and inspections	Ability to isolate valve and effect repairs Ability to reroute service	1	B	2	
SYSTEM: FRESHWATER COOLING							
Loss of either Port cooling or stbd cooling	Loss of some redundancy Possible temporary loss of systems on affected side	Preventive maintenance and inspections Continuous monitoring	Redundancy in systems – ability to utilize other cooling system	2	B	6	

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HAZARDS	CONSEQUENCES	PREVENTIONS	MITIGATIONS	RISK RANKING			RECOMMENDATIONS / COMMENTS
				S	L	RR	
Thruster cooling	Loss of affected thruster Station keeping ability can be degraded depending on weather/thruster requirements	Preventive maintenance, inspections and testing Continuous monitoring of systems	Availability of spares and ability to effect repairs Constant monitoring of station keeping	1	C	3	
Diesel cooling	Can be of no immediate consequence depending on power requirements	Preventive maintenance, inspections and testing Constant monitoring of systems	Ability to effect repairs Ability to cross over to salt water service and flush afterwards	5	B	9	As with all other issues involving power generation, a cascade effect can ensue based on power requirements

HAZARDS	CONSEQUENCES	PREVENTIONS	MITIGATIONS	RISK RANKING			RECOMMENDATIONS / COMMENTS
				S	L	RR	
SYSTEM: FIRE SYSTEM (INCLUDING DELUGE, FOAM, SPRINKLERS) CO2							
Failure of single fire water pump.	Possible loss of redundancy	Preventive maintenance and inspections	Redundancy in pumps Constant monitoring of systems Availability of spares and ability to effect repairs	1	C	3	Two pumps one in each outboard engine room. Each pump provides 100% requirement Suction taken from seawater ring main and can be operated from local fire pump control panels

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				S	L	RR		
Failure of both firewater pumps.	Reduction in or loss of fire water capability.	Preventive maintenance and inspections	Alternative feed for firewater system from seawater system and foam pump	1	B	2		
Rupture/leaking of ring main piping.	Possible damage from salt water spray. Loss of equipment. Possible flooding and stability issue depending on affected area.	Preventive maintenance and inspections including ultrasound and NDT. Inspections and space audits	CCTV in certain areas. Ability to isolate and repair. Bilge and ballast systems	1	B	2		
Failure of branch line.	Possible loss of fire hoses on branch.	Preventive maintenance and inspections	Ability to isolate and repair. Multiple fire hose stations positioned around rig.	1	B	2		
Loss of foam system	Loss of fixed foam protection	Preventive maintenance inspections and testing	Availability of portable foam and other systems. Ability to effect repairs	2	B	6		Fixed foam fitted to heliport, fuel system and tanks

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HAZARDS	CONSEQUENCES	PREVENTIONS	MITIGATIONS	RISK RANKING			RECOMMENDATIONS / COMMENTS
				S	L	RR	
Loss of CO2 to any area	Fire protection degraded for affected space	Preventive maintenance inspections and testing	Availability of portable foam and other systems Ability to effect repairs	5	A	16	

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HAZARDS	CONSEQUENCES	PREVENTIONS	MITIGATIONS	RISK RANKING			RECOMMENDATIONS / COMMENTS
				S	L	RR	
SYSTEM: ACCOMMODATION HVAC INCLUDING CONTROL ROOM							
Air Handling Unit(s) failure.	Loss or partial loss of accommodation air conditioning.	Preventive maintenance and inspections	Repair. Comfort issue only. CCR has a stand-alone unit	1	C	3	
SYSTEM: SWITCHGEAR ROOM HVAC							
Air Handling Unit Failure.	Possible loss of some systems to overheating of electrical equipment.	Preventive maintenance and inspections	Redundancy in systems Ability to effect repairs Door s can be opened to provide some cooling by ambient air	1	C	3	
SYSTEM: COLUMN VENTILATION							
Loss of Supply fan.	No significant consequence	Preventive maintenance and inspections	Ability to effect repairs	1	C	3	
SYSTEM: MUD PIT/PUMP ROOM VENTILATION							
Loss of ventilation fans	Possible loss of pressurization of space Possible gas spread to other areas with fire and explosion hazard.	Preventive maintenance and inspections	Redundant ventilation fans. Ability to effect repairs	4	B	15	

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HAZARDS	CONSEQUENCES	PREVENTIONS	MITIGATIONS	RISK RANKING			RECOMMENDATIONS / COMMENTS
				S	L	RR	
SYSTEM: FUEL SYSTEM							
Hose break, spillage at loading station.	Environmental impact. Possible personnel injury. Possible fire hazard	Fuel Transfer procedures including Declaration of Inspections Hot work suspended rig wide Hose pressure tests	Personnel with radios on watch during transfers. Spill Response. Availability of medical treatment Hoses tested annually	3	B	9	
Leak in Hull Tanks.	Possible environmental impact. Possible fuel contamination. Possible stability issues.	Preventive maintenance and inspections. Periodic surveys by class society.	Spill response. Daily sounding of fuel tanks. Level indication in tank.	5	A	16	
Fuel Oil Transfer pump leak.	Fuel oil in bilge. Fire hazard Loss of ability to pump fuel on affected side	Preventive maintenance and inspections	Bilge alarm. Spare parts on board. Ability to effect repairs Bilge pump isolation Firefighting capability	1	C	3	Bilges are pumped to the oily water separator
Fuel Oil Settling tanks leakage.	Spillage. Possible fire hazard.	Preventive maintenance and inspections.	Firefighting capability	3	A	8	Settling tank is adjacent to the warehouse and is marked
Fuel Oil Purifier failure.	Possible dirty fuel to engines.	Preventive maintenance and inspections Monitoring for contaminated fuel	Redundant fuel oil purifiers. Ability to feed Day Tanks from either purifier	1	B	2	

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				S	L	RR	
Day Tank leak.	Spillage. Possible fire hazard.	Preventive maintenance and inspections	Contained in Engine Room before transfer to oily-water separator. Firefighting capability	3	A	8	
Failure of fuel pump to engine(s).	Loss of single engine.	Preventive maintenance and inspections	Multiple redundant engines. Ability to reroute fuel supply	1	A	1	A 15 minute day tank is fitted for each engine
Service oil transfer line failure.	Loss of auxiliary fuel supply to deck stations	Preventive maintenance and inspections	Ability to isolate line and effect repairs	1	A	1	

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				S	L	RR	
SYSTEM: HP AIR							
Loss of single HP Compressor.	Loss of redundancy.	Preventive maintenance and inspections	Redundant HP compressors.	1	C	3	
Loss of both HP Compressors.	Loss of ability to fill accumulator bottles.	Preventive maintenance and inspections.	Stand-by accumulators charged at all times. Ability to effect repairs Availability of rental units	2	B	6	
Accumulator bottle relief valve fails open.	Loss of air accumulation in bottle. Possible reduced tensioning capability. Possible reduced compensation ability.	Preventive maintenance and inspections	Ability to isolate individual bottle.	1	B	2	
HP Air Line failure.	Partial or complete loss of HP Air. Possible loss or reduction of tensioning capability. Possible loss or reduction of compensation ability. Possible personnel injury.	Preventive maintenance and inspections Some HP air lines protected from impact.	Possible ability to isolate line break. Hospital and medivac capabilities.	4	B	15	

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HAZARDS	CONSEQUENCES	PREVENTIONS	MITIGATIONS	RISK RANKING			RECOMMENDATIONS / COMMENTS
				S	L	RR	
SYSTEM: RIG AIR							
Loss of single rig air compressor	No significant consequence.	Preventive maintenance and inspections	Redundant rig air compressors.	1	C	3	
Loss of all rig air compressors.	Shut down drilling Possible loss of well is failure occurs while cementing	Preventive maintenance and inspections	Possibility of shutting down non-essential air consumers. Ability to effect repairs	4	B	15	Severity will vary depending on operations when loss occurs
Rig air branch line/valve failure. leak	Loss or reduction of rig air supply to air consumers on branch.	Preventive maintenance and inspections	Ability to isolate separate branch and effect repairs	1	B	2	
Rig air receiver relief valve fails closed.	Possible overpressure of air receiver.	Preventive maintenance and inspections	Compressor not physically able to overpressure system. Multiple relief valves on system.	1	B	2	

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				S	L	RR	
Rig air receiver relief valve fails open.	Loss of air to consumer fed by receiver.	Preventive maintenance and inspections	Ability to isolate air receiver and effect repairs Compressor will compensate for small leak.	1	B	2	
SYSTEM: DRILLING							
Drawworks Failure. (Brakes)	Possibility of dropping block. Possible personnel injuries or fatalities. Possible structural damage. Possibility of fire and explosion.	Preventive maintenance and inspections Repairs with approved spares only Proper adjustment of brakes	Spare parts on board. Availability of medical treatment including medivac Well control capabilities.	5	B	17	
Failure of load indication	Operations shut down immediately	Preventive maintenance, inspections and testing	Ability to effect repairs	1	B	2	

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				S	L	RR	
Drill String failure	Possibility of drill string falling to Drill Floor. Possible personnel injuries or fatalities. Possible structural damage. Possible of fire and explosion dependent on current ops. Possible reduction of well control capability. Possible loss of well.	Required inspections annually at a minimum but done more often between wells. Training and procedures. Observations while tripping Restricted access to area of operations	Availability of medical treatment including medivac Firefighting capabilities EX Equipment on Drill Floor. Subsea well control availability. Availability of fishing tools for each string	5	B	17	
Top Drive failure.	Dropped string on Drill Floor. Possible personnel injuries or fatalities. Possible structural damage. Possible of fire and explosion. Possible reduction of well control capability. Possible loss of well.	Preventive maintenance and inspections Annual inspections. Training and procedures.	Availability of medical treatment including medivac Ability to effect repairs EX Equipment on Drill Floor. Subsea well control available.	5	B	17	
Standpipe manifold failure,	Reduced well control capability. Possible personnel injuries or fatalities. Possible fire and explosion. Possible stuck drill string.	Testing x 2 weeks Preventive maintenance and inspections Training. Periodic ultrasonic testing	Redundant lines, valves and chokes. Spares on board. Cement system. Availability of medical treatment including medivac	5	B	17	

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				S	L	RR	
Choke & Kill manifold failure.	Reduced well control capability. Possible personnel injuries or fatalities. Possible fire and explosion. Possible stuck drill string.	Testing x 2 weeks Preventive maintenance and inspections Training. Periodic ultrasonic testing	Redundant lines, valves and chokes. Spares on board. Cement system. Availability of medical treatment including medivac	5	B	17	
Single Mud Pump Failure.	Possible reduction of ability to circulate. Possible impact on well control capability	Preventive maintenance and inspections	Redundant mud pumps. Riser boost pump	3	E	19	
Multiple Mud Pump Failure.	Reduction in ability to circulate Impact on well control capability	Preventive maintenance and inspections	Redundant mud pumps. Riser boost pump Use of cement unit to circulate Shut in well and monitor on trip tank	3	E	19	
Total mud pump failure	Impact on well control - inability to circulate	Preventive maintenance and inspections	Use of cement unit to circulate Shut in well and monitor on trip tank	4	A	14	
SYSTEM: Drilling Equipment Instrumentation							

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HAZARDS	CONSEQUENCES	PREVENTIONS	MITIGATIONS	RISK RANKING			RECOMMENDATIONS / COMMENTS
				S	L	RR	
PVT failure, pressure sensor failure, flow indicator failure	Loss of downhole information. Possible well control situation	Preventive maintenance and inspections.	Manual pit volumes. Redundant pressure sensors. Spare parts on board. Mechanical indication on trip tanks. Third party logging unit.	3	C	13	
SYSTEM: Riser failure / parting of riser.	Riser / Diverter Possible loss of well control. Possible loss of BOP. Possible loss of riser. Possible personnel injury or death (possibly multiple). Possible blowout. (subsea, surface)	Testing, inspections and maintenance.	Failsafe functioning of valves Spill response procedures Availability of medical treatment including medivac Ability to evacuate rig	5	B	17	

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				S	L	RR	
Divertter failure.	Possible blowout on rig floor with possible multiple injuries or fatalities and possible loss of rig. Possible loss of riser Possible environmental impact	Testing, inspections and maintenance.	EX equipment on Drill Floor. Gas detection system for warning. Ability to function BOP. Ability for evacuation of rig. Availability of medical treatment including medivac Spill response procedures	5	B	17	
SYSTEM: BOP SYSTEMS							
Control system failure.	Possible loss of BOP control. Reduced well control capability. Possible blowout with possible multiple fatalities and possible loss of rig. Possible environmental impact	Testing, inspections and maintenance.	Redundant control systems (yellow and blue pod). ROV intervention. Spare parts on board. Redundancy in control stations. Availability of medical treatment including medivac Spill response procedures	5	B	17	

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				S	L	RR	
BOP component failure.	Reduced well control capability depending on component Possible blowout with possible multiple fatalities and possible loss of rig. Possible environmental impact	Testing, inspections and maintenance.	Redundant BOP components. Spare parts on board Ability to effect repairs Availability of medical treatment including medivac Spill response procedures	5	B	17	
Failure of hydraulic supply.	Loss of some redundancy in control of BOP system. Reduced well control capability. Possible blowout with possible multiple fatalities and possible loss of rig.	Testing, inspections and maintenance.	Redundant pumps and lines. Accumulators on BOP. ROV intervention.	5	B	17	

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HAZARDS	CONSEQUENCES	PREVENTIONS	MITIGATIONS	RISK RANKING			RECOMMENDATIONS / COMMENTS
				S	L	RR	
SYSTEM: CRANES							
Failure of crane boom- overloading or structural failure	Dropped load. Possible loss of crane. Personnel injury or fatality. Possible equipment damage. Possible structural damage.	Preventive maintenance and inspection. Load indication. Proper manifesting. Annual load testing Operational limits	Availability of medical treatment including medivac Ability to use other cranes.	5	B	17	Permit to Work required when hoisting personnel max wind speed 30.9 m/s
	Failure of crane cable- boom or hoist	Dropped load. Personnel injury or fatality. Possible equipment damage. Possible structural damage. Possible dropped boom.	Preventive maintenance and inspection. Standard in place to change crane cables annually or inspection by third party Training. Load indication. Proper manifesting.	Availability of medical treatment including medivac Ability to use other cranes Availability of spare wires	5	B	17

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SYSTEM: ESCAPE AND EVACUATION, RESCUES SYSTEMS						
Lifboat hook, cable, davit or winch failure.	Possible dropped lifboat. Possible multiple personnel injuries or fatalities.	Maintenance, inspections and testing. Load testing. Training and procedures. Use of safety cables on boats during drills and maintenance Cables changed out on a regulated basis.	Availability of medical treatment including medivac Redundancy in means of evacuation.	5	B	17
Liferaft davit, cable or winch failure.	Possible dropped liferaft. Possible multiple personnel injuries or fatalities.	Maintenance, inspections and testing. Load testing. Cables changed out on a regulated basis. Training and procedures.	Availability of medical treatment including medivac Redundancy in means of evacuation	5	B	17
						Permit to Work required when working on boats or for loading during drills

HAZARDS	CONSEQUENCES	PREVENTIONS	MITIGATIONS	RISK RANKING	RECOMMENDATIONS / COMMENTS
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				S	L	RR
SYSTEM: STATION KEEPING						
Loss of single GPS	No immediate consequence	No prevention for loss of GPS	24 hour manning in control room Constant monitoring of station keeping Training in emergency scenarios Redundancy	1	E	10
Loss of multiple GPS	Status is degraded Possible loss of station keeping ability Possibility of drive off Possible well control incident Possible environmental impact	No prevention for loss of GPS	Suspension of drilling operations Continuous monitoring of station keeping Training in emergency scenarios Spill response procedures	3	C	13
Loss of Acoustics	Status is degraded Possibility of drive off Possible well control incident Possible environmental impact	Preventive maintenance Monitoring of battery status	24 hour manning in control room Training in emergency scenarios Spill response procedures Redundancy with GPS	3	B	9
Loss of GPS and Acoustics	Loss of station keeping ability Possibility of drive off Possible well control incident Possible environmental impact	Preventive maintenance Redundancy in GPS	24 hour manning in control room Training in emergency scenarios Spill response procedures Ability to shut in the well	5	A	16
Loss of acoustics is higher than the loss of GPS						
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HAZARDS	CONSEQUENCES	PREVENTIONS	MITIGATIONS	RISK RANKING			RECOMMENDATIONS / COMMENTS
				S	L	RR	
Loss of SDP-32 dynamic Positioning system (including consoles in CCR)	Station keeping ability is degrades	Constant monitoring Six hour DP checklist and transfer of control checks	Redundancy with fire back up system	3	B	7	
Loss of SDP-12 dynamic positioning system (fire backup) (including console in ECR)	No immediate consequence	Constant monitoring Six hour DP checklist and transfer of control checks	A precautionary "white alert" is issued to the rig floor	1	B	2	
Loss of single thruster	No immediate consequences depending on weather/current conditions	Preventive maintenance, inspections and testing Constant monitoring of systems	Redundancy in thrusters Heightened awareness and constant monitoring of station keeping Ability to effect repairs	2	E	12	

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HAZARDS	CONSEQUENCES	PREVENTIONS	MITIGATIONS	RISK RANKING			RECOMMENDATIONS / COMMENTS
				S	L	RR	
Loss of both thrusters on one quadrant	Degraded control Possible loss of station keeping ability Possibility of drive off Possible environmental impact	Preventive maintenance, inspections and testing constant monitoring of systems	Heightened awareness and constant monitoring of station keeping repairs Ability to effect Spill response procedures	5	D	24	

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**APPENDIX VI
RECOMMENDATION
STATUS TABLE**

RECOMMENDATION	HAZARD RISK RANK	RESPONSIBLE PERSON	STATUS	ACTION TAKEN / REASON FOR NO ACTION
R1: Consider providing High Voltage PPE for the A/C Unit Room. Also replace the sign detailing steps to take in electrical shock situation with one having larger typeface.	Medium	Electrical Supv. Chief Mate	Closed	PPE not required as per definition of High Voltage. Signs have been ordered and are being put in place as they arrive
R2: Consider providing a sign for A/C Unit Room warning "Caution: Hot Surfaces"	Low	Chief Mate	Closed	Signs posted
R3: Consider providing High Voltage PPE for the Auxiliary MCC Room. Also consider placement of a sign detailing steps to take in electrical shock situation.	Medium	Electrical Supv. Chief Mate	Closed	PPE not required as per definition of High Voltage. Signs have been ordered and are being put in place as they arrive
R4: Consider the installation of a PPE box for the Battery Room. Also consider the installation of an eyewash station for the battery room.	Low	Electrical Supv. RSTC	Closed	PPE installed Eyewash station installed
R5: Consider the placement of warning signs on the outside aft and fwd doors to the Cement Unit room warning of high noise levels.	Unranked	Chief Mate	Closed	Signs posted
R6: Consider the installation of an approved flammables storage locker for the port crane pedestal.	Low	Deckpusher Toolpusher	Closed	The Roustabout locker next to the crane pedestal is an approved flammables storage area
R7: Consider the installation of an approved flammables storage locker for the Driller's Store Room.	Low	Toolpusher	Closed	Storage locker in place
R8: Consider providing High Voltage PPE for the Electrical Equipment Room port fwd 2 nd deck. Also consider placement of a sign detailing steps to take in electrical shock situation.	Medium	Electrical Supv. Chief Mate	Closed	PPE not required as per definition of High Voltage. Signs have been ordered and are being put in place as they arrive
R9: Consider the installation of an approved flammables storage locker for the Electrician's Shop.	Low	Electrical Supv.	Closed	Electrical Supervisor determined that Locker was not needed
R10: Recommend the installation of a PA speaker with adjustable volume in the hospital.	Unranked	Electrical Supv.	Closed	Speaker installed
R11: Consider providing High Voltage PPE for the HVAC Room. Also consider placement of a sign detailing steps to take in electrical shock situation.	Medium	Electrical Supv.. Chief Mate	Closed	PPE not required as per definition of High Voltage. Signs have been ordered and are being put in place as they arrive

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RECOMMENDATION	HAZARD RISK RANK	RESPONSIBLE PERSON	STATUS	ACTION TAKEN / REASON FOR NO ACTION
R12: Two bottles of propane were found in a locker in the HVAC Room. Consider the installation of an approved flammables storage locker for this space.	Low	1st Asst. Engineer	Closed	Bottles were removed and housekeeping routines will ensure material is removed after maintenance is performed
R13: Consider the provision of an approved oily waste disposal container for the machine shop.	Low	Mechanical Supv.	Closed	Container in place
R14: Consider the installation of an approved flammables storage locker for the Machine Shop.	Low	Mechanical Supv.	Closed	Locker in place
R15: Consider providing High Voltage PPE for the MCC Room 3rd deck. Also consider placement of a sign detailing steps to take in electrical shock situation.	Medium	Electrical Supv. Chief Mate	Closed	PPE not required as per definition of High Voltage. Signs have been ordered and are being put in place as they arrive
R16: Consider placing "Warning - Hot Surfaces" signs on the mud lines in the mud mixing area aft of the sack store.	Low	Toolpusher Chief Mate	Closed	Investigation determined signs were not needed
R17: Consider provision of an approved flammables storage locker and an oily waste container for the Center Mud Pump Room.	Low	Toolpusher	Closed	Housekeeping routines will ensure material is removed after maintenance is performed
R18: Consider the placement of a sign detailing steps to take in an electrical shock situation in the Port fwd electrical thruster space.	Medium	Electrical Supv. Chief Mate	Closed	Signs installed upon arrival
R19: Consider the placement of a "High Voltage" warning sign on the door of the #1 Process Unit aft of the Bridge/CCR	Medium	Electrical Supv. Chief Mate	Closed	Determined upon investigation that sign was not needed due to voltage in space
R20: Consider the installation of a smoke alarm in the ROV control van.	Low	Oceanengineering RSTC	Closed	Alarm installed
R21: Consider the provision of an oily waste disposal container for the Ship Service Air Compressor Room port.	Low	Mechanical Supv.	Closed	Housekeeping routines will ensure material is removed after maintenance is performed. Adjacent space has oily waste disposal container.
R22: Consider the provision of an oily waste disposal container for the Standby Generator Room	Low	1st Asst. Engineer	Closed	Housekeeping routines will ensure Material is removed after maintenance
R23: Consider the provision of an approved flammable storage locker for the Subsea Workshop	Low	Subsea RSTC	Closed	Senior Subsea determined locker is not needed
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RECOMMENDATION	HAZARD RISK RANK	RESPONSIBLE PERSON	STATUS	ACTION TAKEN / REASON FOR NO ACTION
R24: Consider the provision of High Voltage PPE for the port 480V Switchboard Room.	Medium	Electrical Supv.	Closed	Determined to be low voltage area such that PPE is not needed
R25: Consider extending the ladder from Thruster #5 lower space so that it extends above the deck in the upper part of the space so hook up can be made more safely.	Unranked	1st Asst. Engineer	Closed	No action taken . Investigation determined that equipment in place was sufficient.
R26: Consider providing High Voltage PPE for the Transformer Room stbd. Also consider placement of a sign detailing steps to take in electrical shock situation.	Medium	Electrical Supv. Chief Mate	Closed	PPE not required as per definition of High voltage. Signs have been ordered and are being put in place as they arrive
R27: Consider special training for personnel in awareness of electrical shock and steps to take when finding a casualty (use of shepherd's crook). Consider developing a presentation to run on the screen in the mess room.	Unranked	RSTC	Closed	RSTC has provided the electrical /maintenance dept with training video

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