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	CLIENT:	SRGE	SHEET: 1 of 44
	JOB:	BASIC DESIGN	-
	AREA:		
SRGE	TITLE: SAFETY REQUIREMENTS FOR ONSHORE COMMISSIONING		NP-1
			ESUP

INDEX OF REVISIONS

REV.	DESCRIPTION AND/OR REVISED SHEETS
0	ORIGINAL
A	<p>Systems included:</p> <p>1240 - Subsea Multiphase Pumps, 1243 - Electro-centrifugal pumping system, 1350 – Gas Recovery, 5132 - Electrical or Thermal Generation, 5255 – Air Exhaustion, 551a Telecommunication Infrastructure, 552c Infrastructure for Automation Core Network, 5525 Tank O2/HC Sampling System, 6650 Auxiliary Vessel Monitoring and Control, 8214 Galley, 8222 Laboratory, 8230 Laundry, 8233 Male and Female Change Room, 8237 Cabins and Accommodation Deck System, 8238 Recreation, Rooms/Gymnasium, 8243 Auditorium, 8249 Library</p> <p>Inert gas IG 541 included in SOP 5425</p> <p>Hot surface contact risk included in SOP 5125</p> <p>Both codes can be used for TEG dehydration system: SOP 1227/1233</p> <p>Both codes can be used for Air Insufflation system SOP 5254/5251</p> <p>SOP 5263 name changed from: UPS for Emergency Lighting to: Emergency Lighting</p> <p>Both codes can be used for Television System: SOP 5519/ 5590. name changed from: Television (TV) to: Television System (Former Telesupervision System)</p> <p>LINES STEAM BLOWING risks inclusion</p>

	REV. 0	REV. A							
DATE	26.08.2022	21.06.2024							
DESIGN	EICOM	EICOM							
EXECUTION	EIW7	EIW7							
CHECK	U38W	EHVV							
APPROVAL	EAfZ	EAfZ							

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FORM OWNED TO PETROBRAS N-381 REV. L



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SUMMARY

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1 INTRODUCTION

1.1 Objective

1.1.1 To define the minimum safety requirements to be met by CONTRACTOR during onshore commissioning.


1.2 General


CONTRACTOR is responsible to provide all necessary equipment and assistance to make available the safeguards described in each system as per item 1.3.


1.3 Commissioning risks per system

RISK SCENARIOS BY SOP

SOP	DESCRIPTION	RISK SCENARIOS	RISK TREATMENT/SAFEGUARDS
1210	WELL	<ul style="list-style-type: none"> - High pressure with risk of leakage and water splashes - Opening and closing of SDV/BDV/XV, risk of leakage and oil splash. 	<ul style="list-style-type: none"> - Portable firefighting systems - Fire extinguishers (CO2 and/or dry chemical powder) - Fixed firefighting systems - Hydrants (Even if temporary) - Cabinets of materials for fire fighting - Personal protective equipment - Emergency showers and eyewash - Blocking and signaling of the tested pipes - Oil leak mitigation kit.
1212	CRUDE OIL AND GAS METERING	- N/A	- N/A


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1223	PETROLEUM PROCESS	<ul style="list-style-type: none"> - High pressure with risk of leakage and water splashes - Opening and closing of SDV/BDV/XV, risk of leakage and oil splash - Electric shock - Electric motors with risk of fire - Explosion risk electrical panels - High voltage (TO/V-TO) 	<ul style="list-style-type: none"> - Where there is an electrical panel - (PPE suitable for intervention, energy isolation and de-energization and grounding stick) - Rubber floor for electrical panel testing - Portable firefighting systems - Fire extinguishers (CO2 and/or dry chemical powder) - Fixed firefighting systems - Hydrants (Even if temporary) - Cabinets of materials for fire fighting - Personal protective equipment - Emergency showers and eyewash - Blocking and signaling of the tested circuit pipes - Alignment for depressurization after test - Oil leak mitigation kit. 	
1225	VAPOR RECOVERY	<ul style="list-style-type: none"> - Pressure Test (Leak test with N2+He) - High pressure with risk of leakage and lubricating oil splashes - Opening and closing of SDV/BDV/XV, risk of leakage and oil splash - Presence of lubricating oil (flammable) with possibility of leakage with combustion - Electric shock - Explosion risk electrical panels - Electric motors with risk of fire 	<ul style="list-style-type: none"> - Where there is an electrical panel - (PPE suitable for intervention, energy isolation and de-energization and grounding stick) - Rubber floor for electrical panel testing - Fixed firefighting systems - Hydrants (Even if temporary) - Cabinets of materials for fire fighting - Portable firefighting systems - Fire extinguishers (CO2 and/or dry chemical powder) - Personal protective equipment - Emergency showers and eyewash - Blocking and signaling of the tested pipes - Alignment for depressurization after test - Oil leak mitigation kit 	
1227	GAS DEHYDRATION GDU-1	<ul style="list-style-type: none"> - Pressure Test (Leak test with N2+He) - High pressure with risk of inert gas leakage - Electric shock - Hot Fluid (Regeneration) - Handling of heavy material (loading stuffing into the vessels) 	<ul style="list-style-type: none"> - Where there is an electrical panel - (PPE suitable for intervention, energy isolation and de-energization and grounding stick) - Rubber floor for electrical panel testing - Portable firefighting systems - Fire extinguishers (CO2 and/or dry chemical powder) 	


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		<ul style="list-style-type: none"> - Hot Fluid (Regeneration) - Opening and closing of SDV/BDV/XV, risk of leakage and oil splash 	<ul style="list-style-type: none"> - Personal protective equipment - Emergency showers and eye wash - Blocking and signaling of the tested circuit pipes - Alignment for depressurization after test - Oil leak mitigation kit 	
1231	GAS PROCESSING / HANDLING	<ul style="list-style-type: none"> - Pressure Test (Leak test with N2+He) - High pressure with risk of inert gas leakage - Electric shock - Explosion risk electrical panels - Electric motors with risk of fire - Presence of lubricating oil (flammable) with possibility of leakage with combustion - High pressure with risk of leakage and splash of lubricating oil - SDV/BDV/XV opening and closing, SDV/BDV/XV oil spill and splash hazard, SDV and BDV oil leak and splash hazard, oil leak and splash hazard 	<ul style="list-style-type: none"> - Where there is an electrical panel - (PPE suitable for intervention, energy isolation and de-energization and grounding stick) - Rubber floor for electrical panel testing - Portable firefighting systems - Fire extinguishers (CO2 and/or dry chemical powder) - Personal protective equipment - Emergency showers and eye wash - Blocking and signaling of the tested pipes - Alignment for depressurization after test - Oil leak mitigation kit 	
1227 or 1233	GAS DEHYDRATION GDU-2	<ul style="list-style-type: none"> - Pressure Test (Leak test with N2+He) - High pressure with risk of inert gas leakage (N2+He) - Handling of heavy material (loading stuffing into the vessels) - Toxic fluid handling (TEG) - Electric shock - Explosion risk electrical panels - Electric motors with risk of fire - Opening and closing of 	<ul style="list-style-type: none"> - Where there is an electrical panel - (PPE suitable for intervention, energy isolation and de-energization and grounding stick) - Rubber floor for electrical panel testing - Portable firefighting systems - Fire extinguishers (CO2 and/or dry chemical powder) - Fixed firefighting systems - Hydrants (Even if temporary) - Cabinets of materials for fire fighting - Personal protective equipment - Emergency showers and eye wash 	


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		SDV/BDV/XV, risk of leakage and oil splash	<ul style="list-style-type: none"> - Blocking and signaling of the tested circuit pipes - Alignment for depressurization after test - Oil leak mitigation kit 	
1234	H2S REMOVAL	<ul style="list-style-type: none"> - Pressure Test (Leak test with N2+He) - High pressure with risk of inert gas leakage (N2+He) - Handling of heavy material (loading stuffing into the vessels) - Electric shock - Explosion risk electrical panels - Electric motors with risk of fire - Opening and closing of SDV/BDV/XV, risk of leakage and oil splash 	<ul style="list-style-type: none"> - Where there is an electrical panel - (PPE suitable for intervention, energy isolation and de-energization and grounding stick) - Rubber floor for electrical panel testing - Portable firefighting systems - Fire extinguishers (CO2 and/or dry chemical powder) - Personal protective equipment - Emergency showers and eye wash - Blocking and signaling of the tested circuit pipes - Alignment for depressurization after test - Oil leak mitigation kit 	
1235	CO2 REMOVAL	<ul style="list-style-type: none"> - Loading of membranes and inerting - Electrical panels - Opening and closing of SDV/BDV/XV, risk of leakage and oil splash 	<ul style="list-style-type: none"> - Portable firefighting systems - Fire extinguishers (CO2 and/or dry chemical powder) - Where there is an electrical panel - (PPE suitable for intervention, energy isolation and de-energization and grounding stick) - Rubber floor for electrical panel testing - Oil leak mitigation kit 	
1238	HYDROCARBON DEW POINT	<ul style="list-style-type: none"> - Pressure Test (Leak test with N2+He) - High pressure with risk of inert gas leakage (N2+He) - Electric shock - Explosion risk electrical panels - Electric motors with risk of fire - Handling of heavy material (loading stuffing into the vessels) - Asphyxiating fluid loading (R-134_A) - High pressure with risk of gas leakage (R-134_A) - Opening and closing of SDV/BDV/XV, risk 	<ul style="list-style-type: none"> - Where there is an electrical panel - (PPE suitable for intervention, energy isolation and de-energization and grounding stick) - Rubber floor for electrical panel testing - Portable firefighting systems - Fire extinguishers (CO2 and/or dry chemical powder) - Personal protective equipment - Emergency showers and eye wash - Blocking and signaling of the tested circuit pipes - Alignment for depressurization after test - Oil leak mitigation kit 	




		of leakage and oil splash	
1240	SUBSEA MULTIPHASE PUMPS	<ul style="list-style-type: none"> - High pressure with risk of leakage and water splashes - Pressure Test (Leak test with N2+He) - High pressure with risk of inert gas leakage - Presence of lubricating oil (flammable) with possibility of leakage with combustion - High pressure with risk of leakage and splashing of toxic/corrosive fluid (Chemical Injection and CIP) - Electric shock - Explosion risk electrical panels - Electric motors with risk of fire - Opening and closing of SDV/BDV/XV, risk of leakage and oil splash 	<ul style="list-style-type: none"> - High pressure with risk of leakage and water splashes - Pressure Test (Leak test with N2+He) - High pressure with risk of inert gas leakage - Presence of lubricating oil (flammable) with possibility of leakage with combustion - High pressure with risk of leakage and splashing of toxic/corrosive fluid (Chemical Injection and CIP) - Electric shock - Explosion risk electrical panels - Electric motors with risk of fire - Opening and closing of SDV/BDV/XV, risk of leakage and oil splash
1243	ELECTRO-CENTRIFUGAL PUMPING SYSTEM	<ul style="list-style-type: none"> - High pressure with risk of leakage and water splashes - Pressure Test (Leak test with N2+He) - High pressure with risk of inert gas leakage - Presence of lubricating oil (flammable) with possibility of leakage with combustion - High pressure with risk of leakage and splashing of toxic/corrosive fluid (Chemical Injection and CIP) - Electric shock - Explosion risk electrical panels 	<ul style="list-style-type: none"> - High pressure with risk of leakage and water splashes - Pressure Test (Leak test with N2+He) - High pressure with risk of inert gas leakage - Presence of lubricating oil (flammable) with possibility of leakage with combustion - High pressure with risk of leakage and splashing of toxic/corrosive fluid (Chemical Injection and CIP) - Electric shock - Explosion risk electrical panels - Electric motors with risk of fire - Opening and closing of SDV/BDV/XV, risk of leakage and oil splash


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		<ul style="list-style-type: none"> - Electric motors with risk of fire - Opening and closing of SDV/BDV/XV, risk of leakage and oil splash 		
1244	WELL LAUNCHERS PIG	<ul style="list-style-type: none"> - High pressure with risk of leakage and water splashes - Opening and closing of SDV/BDV/XV, risk of leakage and oil splash 	<ul style="list-style-type: none"> - Personal protective equipment - Emergency showers and eye wash - Oil leak mitigation kit 	
1251	WATER INJECTION	<ul style="list-style-type: none"> - High pressure with risk of leakage and water splashes - Pressure Test (Leak test with N2+He) - High pressure with risk of inert gas leakage - Presence of lubricating oil (flammable) with possibility of leakage with combustion - High pressure with risk of leakage and splashing of toxic/corrosive fluid (Chemical Injection and CIP) - Electric shock - Explosion risk electrical panels - Electric motors with risk of fire - Opening and closing of SDV/BDV/XV, risk of leakage and oil splash 	<ul style="list-style-type: none"> - Where there is an electrical panel - (PPE suitable for intervention, energy isolation and de-energization and grounding stick) - Rubber floor for electrical panel testing - Portable firefighting systems - Fire extinguishers (CO2 and/or dry chemical powder) - Fixed firefighting systems - Hydrants (Even if temporary) - Cabinets of materials for fire fighting - Personal protective equipment - Emergency showers and eye wash - Blocking and signaling of the tested pipes - Alignment for depressurization after test - Oil leak mitigation kit 	
1252	GAS INJECTION	<ul style="list-style-type: none"> - High pressure with risk of leakage and water splashes - Pressure Test (Leak test with N2+He) - High pressure with risk of inert gas leakage - Presence of lubricating oil (flammable) with possibility of 	<ul style="list-style-type: none"> - Where there is an electrical panel - (PPE suitable for intervention, energy isolation and de-energization and grounding stick) - Rubber floor for electrical panel testing - Portable firefighting systems - Fire extinguishers (CO2 and/or dry chemical powder); - Fixed firefighting systems - Hydrants (Even if temporary) 	


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		leakage with combustion - Electric shock - Explosion risk electrical panels - Electric motors with risk of fire - Opening and closing of SDV/BDV/XV, risk of leakage and oil splash.	- Cabinets of materials for fire fighting - Personal protective equipment - Emergency showers and eye wash - Blocking and signaling of the tested circuit pipes - Alignment for depressurization after test - Oil leak mitigation kit	
1254	CO2 INJECTION	Compressor - Pressure Test (Leak test with N2+He) - High pressure with risk of inert gas leakage (N2+He) - High pressure with risk of leakage and lubricating oil splashes - High pressure with risk of inert gas leakage - Presence of lubricating oil (flammable) with possibility of leakage with combustion - Electric shock - Explosion risk electrical panels - Electric motors with risk of fire Turbine - Presence of fuel (flammable) - Presence of lubrication system (flammable) - Hot and asphyxiating gases from combustion	- Where there is an electrical panel - (PPE suitable for intervention, energy isolation and de-energization, grounding rod, risk of explosion in panel); - Rubber floor for electrical panel testing - Portable firefighting systems - Fire extinguishers (CO2 and/or dry chemical powder) - Fixed firefighting systems - Water Mist System - Fixed firefighting systems - Hydrants (Even if temporary) - Cabinets of materials for fire fighting - Portable firefighting systems - LGE - Cabinets of materials for fire fighting - Personal protective equipment - Emergency showers and eyewash - Personal protective equipment - Clothing - Identification of hot parts - Personal protective equipment - Self-contained breathing apparatus - Oil leak mitigation kit	
1261	CHEMICAL INJECTION FOR OIL AND GAS	- Pressure Test (Leak test with N2+He) - High pressure with risk of inert gas leakage (N2+He) - High pressure with risk of inert gas leakage - High pressure with risk of leakage and splashing of toxic/corrosive fluid	- Where there is an electrical panel - (PPE suitable for intervention, energy isolation and de-energization and grounding stick) - Rubber floor for electrical panel testing - Portable firefighting systems - Fire extinguishers (CO2 and/or dry chemical powder) - Personal protective equipment - Emergency showers and eye wash	

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		<ul style="list-style-type: none"> (Chemical Injection and CIP) - Electric shock - Explosion risk electrical panels - Electric motors with risk of fire - Opening and closing of SDV/BDV/XV, risk of leakage and oil splash. 	<ul style="list-style-type: none"> - Blocking and signaling of the tested circuit pipes - Alignment for depressurization after test - Oil leak mitigation kit 	
1262	CHEMICAL INJECTION FOR OILY WATER	<ul style="list-style-type: none"> - Pressure Test (Leak test with N2+He) - High pressure with risk of inert gas leakage - High pressure with risk of leakage and splashing of toxic/corrosive fluid (Chemical Injection and CIP) - Electric shock - Explosion risk electrical panels - Electric motors with risk of fire - SDV/BDV/XV opening and closing, SDV/BDV/XV oil spill and splash hazard, SDV and BDV oil leak and splash hazard, oil leak and splash hazard 	<ul style="list-style-type: none"> - Where there is an electrical panel - (PPE suitable for intervention, energy isolation and de-energization and grounding stick) - Rubber floor for electrical panel testing - Portable firefighting systems - Fire extinguishers (CO2 and/or dry chemical powder) - Personal protective equipment - Emergency showers and eye wash - Blocking and signaling of the tested circuit pipes - Alignment for depressurization after test - Oil leak mitigation kit 	
1263	CHEMICAL INJECTION FOR INJECTION WATER / SEA WATER	<ul style="list-style-type: none"> - Pressure Test (Leak test with N2+He) - High pressure with risk of inert gas leakage (N2+He) - High pressure with risk of inert gas leakage - High pressure with risk of leakage and splashing of toxic/corrosive fluid (Chemical Injection and CIP) - Electric shock - Explosion risk electrical panels - Electric motors with risk of fire 	<ul style="list-style-type: none"> - Where there is an electrical panel - (PPE suitable for intervention, energy isolation and de-energization and grounding stick) - Rubber floor for electrical panel testing - Portable firefighting systems - Fire extinguishers (CO2 and/or dry chemical powder) - Personal protective equipment - Emergency showers and eye wash - Blocking and signaling of the tested circuit pipes - Alignment for depressurization after test - Oil leak mitigation kit 	

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			<ul style="list-style-type: none"> - Opening and closing of SDV/BDV/XV, risk of leakage and oil splash 	
1350	GAS RECOVERY	<ul style="list-style-type: none"> - Pressure Test (Leak test with N2+He) - High pressure with risk of leakage and lubricating oil splashes - Opening and closing of SDV/BDV/XV, risk of leakage and oil splash - Presence of lubricating oil (flammable) with possibility of leakage with combustion - Electric shock - Explosion risk electrical panels - Electric motors with risk of fire 	<ul style="list-style-type: none"> - Where there is an electrical panel - (PPE suitable for intervention, energy isolation and de-energization and grounding stick) - Rubber floor for electrical panel testing - Fixed firefighting systems - Hydrants (Even if temporary) - Cabinets of materials for fire fighting - Portable firefighting systems - Fire extinguishers (CO2 and/or dry chemical powder) - Personal protective equipment - Emergency showers and eyewash - Blocking and signaling of the tested pipes - Alignment for depressurization after test - Oil leak mitigation kit 	
1353	HELIDECK	<ul style="list-style-type: none"> - Electric shock - Explosion risk electrical panels - Electric motors with risk of fire - Test of the LGE system (toxic or corrosive fluid) 	<ul style="list-style-type: none"> - Where there is an electrical panel - (PPE suitable for intervention, energy isolation and de-energization and grounding stick) - Rubber floor for electrical panel testing - Portable firefighting systems - Fire extinguishers (CO2 and/or dry chemical powder) - Personal protective equipment - Emergency showers and eye wash 	
1357	MOORING	<ul style="list-style-type: none"> - Opening and closing of SDV/BDV/XV, risk of leakage and oil splash - Risk of cable breakage (winch) 	<ul style="list-style-type: none"> - Portable firefighting systems - Fire extinguishers (CO2 and/or dry chemical powder) - Oil leak mitigation kit 	

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1358	CARGO TANKS, CARGO PUMPS AND VOID SPACES	<ul style="list-style-type: none"> - System located in room/compartment in the hull - Opening and closing of SDV/BDV/XV, risk of leakage and oil splash - Electric motors with risk of fire - Electric shock - Electrical panels with risk of explosion in panel - Risk of water leakage in the tests. 	<ul style="list-style-type: none"> - Temporary lighting - Demarcated and unobstructed escape route - Unobstructed emergency doors - Autonomous breathing equipment - Where there is an electrical panel - (PPE suitable for intervention, energy isolation and de-energization and grounding stick) - Portable firefighting systems - Fire extinguishers (CO2 and/or dry chemical powder) - Oil leak mitigation kit 		
1359	OFFLOADING AND TELEMETRY	<ul style="list-style-type: none"> - Opening and closing of SDV/BDV/XV, risk of leakage and oil splash - Electric motors with risk of fire - Explosion risk electrical panels - Compressed air cannon (line) - Risk of cable breakage (winch) 	<ul style="list-style-type: none"> - Where there is an electrical panel - (PPE suitable for intervention, energy isolation and de-energization and grounding stick) - Rubber floor for electrical panel testing - Portable firefighting systems - Fire extinguishers (CO2 and/or dry chemical powder) - Oil leak mitigation kit 		
1522	WELL LAUNCHERS AND PIG RECEIVERS	<ul style="list-style-type: none"> - High pressure with risk of leakage and water splashes - Opening and closing of SDV/BDV/XV, risk of leakage and oil splash. 	<ul style="list-style-type: none"> - Portable firefighting systems - Fire extinguishers (CO2 and/or dry chemical powder) - Fixed firefighting systems - Hydrants (Even if temporary) (Recommended practice) - Cabinets of materials for fire fighting - Personal protective equipment - Emergency showers and eyewash - Blocking and signaling of the tested circuit pipes - Oil leak mitigation kit 		
5111	SEA WATER	<ul style="list-style-type: none"> - System located in room/compartment in the hull - High pressure with risk of leakage and water splashes - Pressure Test (Leak test with N2+He) - High pressure with risk of inert gas leakage (N2+He) - High pressure with risk of leakage and splashing of 	<ul style="list-style-type: none"> - Temporary lighting, - Demarcated and unobstructed escape route - Unobstructed emergency doors - Autonomous breathing equipment - Where there is an electrical panel - (PPE suitable for intervention, energy isolation and de-energization and grounding stick) - Rubber floor for electrical panel testing - Portable firefighting systems - Fire extinguishers 		

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		<ul style="list-style-type: none"> toxic/corrosive fluid (Chemical Injection) - Electric shock - Explosion risk electrical panels - Electric motors with risk of fire - Opening and closing of SDV/BDV/XV, risk of leakage and oil splash. 	<ul style="list-style-type: none"> (CO2 and/or dry chemical powder) - Fixed firefighting systems - Hydrants (Even if temporary) (Recommended practice) - Cabinets of materials for fire fighting - Personal protective equipment - Emergency showers and eye wash - Blocking and signaling of the tested circuit pipes - Alignment for depressurization after test - Oil leak mitigation kit 	
5115	FRESH WATER	<ul style="list-style-type: none"> - System located in room/compartment in the hull - High pressure with risk of leakage and water splashes - Pressure Test (Leak test with N2+He) - High pressure with risk of inert gas leakage (N2+He) - High pressure with risk of leakage and splashing of toxic/corrosive fluid (Chemical Injection) - Electric shock - Explosion risk electrical panels - Electric motors with risk of fire - Opening and closing of SDV/BDV/XV, risk of leakage and oil splash. 	<ul style="list-style-type: none"> - Temporary lighting - Demarcated and unobstructed escape route - Unobstructed emergency doors - Autonomous breathing equipment - Where there is an electrical panel - (PPE suitable for intervention, energy isolation and de-energization and grounding stick) - Rubber floor for electrical panel testing - Portable firefighting systems - Fire extinguishers (CO2 and/or dry chemical powder) - Fixed firefighting systems - Hydrants (Even if temporary) (Recommended practice) - Cabinets of materials for fire fighting - Personal protective equipment - Emergency showers and eye wash - Blocking and signaling of the tested circuit pipes - Alignment for depressurization after test - Oil leak mitigation kit 	
5121.1	POTABLE WATER	<ul style="list-style-type: none"> - System located in room/compartment in the hull - High pressure with risk of leakage and water splashes - Pressure Test (Leak test with N2+He) - High pressure with risk of inert gas leakage (N2+He) 	<ul style="list-style-type: none"> - Temporary lighting - Demarcated and unobstructed escape route - Unobstructed emergency doors - Autonomous breathing equipment - Where there is an electrical panel - (PPE suitable for intervention, energy isolation and de-energization and grounding stick) 	

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		<ul style="list-style-type: none"> - High pressure with risk of leakage and splashing of toxic/corrosive fluid (Chemical Injection and CIP) - Electric shock - Explosion risk electrical panels - Electric motors with risk of fire - SDV/BDV/XV opening and closing, SDV/BDV/XV oil spill and splash hazard, SDV or XV oil leak and splash hazard, oil leak and splash hazard 	<ul style="list-style-type: none"> - Rubber floor for electrical panel testing - Portable firefighting systems - Fire extinguishers (CO2 and/or dry chemical powder) - Fixed firefighting systems - Hydrants (Even if temporary) (Recommended practice) - Cabinets of materials for fire fighting - Personal protective equipment - Emergency showers and eye wash - Blocking and signaling of the tested circuit pipes - Alignment for depressurization after test - Oil leak mitigation kit 	
5121.2	HYPOCHLORITE INJECTION	<ul style="list-style-type: none"> - System located in room/compartment in the hull - Pressure Test (Leak test with N2+He) - High pressure with risk of inert gas leakage (N2+He) - High pressure with risk of leakage and splashing of toxic/corrosive fluid (Chemical Injection and CIP) - Electric shock - Explosion risk electrical panels - Electric motors with risk of fire - SDV/BDV/XV opening and closing, SDV/BDV/XV oil spill and splash hazard, SDV or XV oil leak and splash hazard, oil leak and splash hazard 	<ul style="list-style-type: none"> - Temporary lighting - Demarcated and unobstructed escape route - Unobstructed emergency doors - Autonomous breathing equipment - Where there is an electrical panel - (PPE suitable for intervention, energy isolation and de-energization and grounding stick) - Rubber floor for electrical panel testing - Portable firefighting systems - Fire extinguishers (CO2 and/or dry chemical powder) - Personal protective equipment - Emergency showers and eye wash - Blocking and signaling of the tested circuit pipes - Alignment for depressurization after test - Oil leak mitigation kit 	



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<p>5121.3</p>	<p>HULL MARINE GROWTH PROTECTION SYSTEM</p>	<ul style="list-style-type: none"> - System located in room/compartament in the hull - Pressure Test (Leak test with N2+He) - High pressure with risk of inert gas leakage (N2+He) - High pressure with risk of leakage and splashing of toxic/corrosive fluid (Chemical Injection and CIP) - Electric shock - Explosion risk electrical panels - Electric motors with risk of fire - Opening and closing of SDV/BDV/XV, risk of leakage and oil splash. 	<ul style="list-style-type: none"> - Temporary lighting - Demarcated and unobstructed escape route - Unobstructed emergency doors - Autonomous breathing equipment - Where there is an electrical panel - (PPE suitable for intervention, energy isolation and de-energization and grounding stick) - Rubber floor for electrical panel testing - Portable firefighting systems - Fire extinguishers (CO2 and/or dry chemical powder) - Personal protective equipment - Emergency showers and eye wash - Blocking and signaling of the tested circuit pipes - Alignment for depressurization after test
<p>5122.1</p>	<p>FRESH WATER MAKER</p>	<ul style="list-style-type: none"> - System located in room/compartament in the hull - High pressure with risk of leakage and water splashes - Pressure Test (Leak test with N2+He) - High pressure with risk of inert gas leakage (N2+He) - Presence of lubricating oil (flammable) with possibility of leakage with combustion - High pressure with risk of leakage and splashing of toxic/corrosive fluid (Chemical Injection and CIP) - Electric shock - Explosion risk electrical panels - Electric motors with risk of fire - Opening and closing of SDV/BDV/XV, risk of leakage and oil splash. 	<ul style="list-style-type: none"> - Temporary lighting - Demarcated and unobstructed escape route - Unobstructed emergency doors - Autonomous breathing equipment - Where there is an electrical panel - (PPE suitable for intervention, energy isolation and de-energization and grounding stick) - Rubber floor for electrical panel testing - Portable firefighting systems - Fire extinguishers (CO2 and/or dry chemical powder) - Fixed firefighting systems - Hydrants (Even if temporary) (Recommended practice) - Cabinets of materials for fire fighting - Personal protective equipment - Emergency showers and eye wash - Blocking and signaling of the tested circuit pipes - Alignment for depressurization after test - Oil leak mitigation kit




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<p>5122.2</p>	<p>FRESH WATER MAKER FOR DILUTION</p>	<ul style="list-style-type: none"> - System located in room/compartament in the hull - High pressure with risk of leakage and water splashes - Pressure Test (Leak test with N2+He) - High pressure with risk of inert gas leakage (N2+He) - Presence of lubricating oil (flammable) with possibility of leakage with combustion - High pressure with risk of leakage and splashing of toxic/corrosive fluid (Chemical Injection and CIP) - Electric shock - Electric motors with risk of fire - Opening and closing of SDV/BDV/XV, risk of leakage and oil splash. 	<ul style="list-style-type: none"> - Temporary lighting - Demarcated and unobstructed escape route - Unobstructed emergency doors - Autonomous breathing equipment - Where there is an electrical panel - (PPE suitable for intervention, energy isolation and de-energization, grounding rod, risk of explosion in panel) - Rubber floor for electrical panel testing - Portable firefighting systems - Fire extinguishers (CO2 and/or dry chemical powder) - Fixed firefighting systems - Hydrants (Even if temporary) (Recommended practice) - Cabinets of materials for fire fighting - Personal protective equipment - Emergency showers and eye wash - Blocking and signaling of the tested circuit pipes - Alignment for depressurization after test - Oil leak mitigation kit
<p>5124</p>	<p>COOLING WATER</p>	<ul style="list-style-type: none"> - System located in room/compartament in the hull - High pressure with risk of leakage and water splashes - Pressure Test (Leak test with N2+He) - High pressure with risk of inert gas leakage (N2+He) - High pressure with risk of leakage and splashing of toxic/corrosive fluid (Chemical Injection and CIP) - Electric shock - Explosion risk electrical panels - Electric motors with risk of fire - Opening and closing of SDV/BDV/XV, risk 	<ul style="list-style-type: none"> - Temporary lighting - Demarcated and unobstructed escape route - Unobstructed emergency doors - Autonomous breathing equipment - Where there is an electrical panel - (PPE suitable for intervention, energy isolation and de-energization and bar with hook) - Rubber floor for electrical panel testing - Portable firefighting systems - Fire extinguishers (CO2 and/or dry chemical powder) - Fixed firefighting systems - Hydrants (Even if temporary) (Recommended practice) - Cabinets of materials for fire fighting - Personal protective equipment - Emergency showers and eye wash

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		of leakage and oil splashes	<ul style="list-style-type: none"> - Blocking and signaling of the tested circuit pipes - Alignment for depressurization after test - Oil leak mitigation kit 	
5125	HOT WATER	<ul style="list-style-type: none"> - System located in room/compartiment in the hull - High pressure with risk of leakage and water splashes - Risk of hot water leakage - Hot surface - Opening and closing of SDV/BDV/XV, risk of leakage and oil splash - Electric shock - Explosion risk electrical panels - Electric motors with risk of fire - Risk of burning with hot fluid - WHRU (5147) - Risk of high pressure if there is trapped water. 	<ul style="list-style-type: none"> - Temporary lighting - Demarcated and unobstructed escape route - Identification of hot parts - Unobstructed emergency doors - Autonomous breathing equipment - Where there is an electrical panel - (PPE suitable for intervention, energy isolation and de-energization and grounding stick) - Rubber floor for electrical panel testing - Portable firefighting systems - Fire extinguishers (CO2 and/or dry chemical powder) - Fixed firefighting systems - Hydrants (Even if temporary) - Cabinets of materials for fire fighting - Personal protective equipment - Emergency showers and eye wash - Blocking and signaling of the tested circuit pipes - Alignment for depressurization after test - Oil leak mitigation kit 	
5132	Electrical or Thermal Generation	<ul style="list-style-type: none"> - Electricity generation and/or room with electrical panels (risk with electricity) - Presence of fuel (flammable) - Presence of lubricating oil (flammable) with possibility of leakage with combustion - Presence of lubricating oil with potential for leakage and possibility of contact with skin and eyes - Hot and asphyxiating gases from combustion 	<ul style="list-style-type: none"> - Temporary lighting - Demarcated and unobstructed escape route - Unobstructed emergency doors - Autonomous breathing equipment - Where there is an electrical panel - (PPE suitable for intervention, energy isolation and de-energization and grounding stick) - Rubber floor for electrical panel testing - Fixed firefighting systems - Water Mist System - Fixed firefighting systems - Hydrants (Even if temporary) (Recommended practice) - Cabinets of materials for fire fighting - Portable firefighting systems - LGE 	



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		<ul style="list-style-type: none"> - Risk of burning with hot fluid and/or hot parts of the turbine and/or engines - Risk of steam leakage - Risk of burning with steam and/or hot surfaces - Electric motors with risk of fire - High pressure with risk of leakage and water splashes 	<ul style="list-style-type: none"> - Cabinets of materials for fire fighting - Portable firefighting systems - Fire extinguishers (CO2 and dry chemical powder) - Personal protective equipment - Emergency showers and eyewash - Personal protective equipment - Clothing - Identification of hot parts - Check the presence of people inside the HOOD before activating the equipment, as well as the presence of fuel residues and cleaning of the place. - Check and remove temporary filters or mesh (mesh) used for oil flushing before starting the machines. - Keep firefighters on standby following the test.
<p>5133.1</p>	<p>DIESEL</p>	<ul style="list-style-type: none"> - System located in room/compartment in the hull - High pressure with risk of leakage and oil splash - Presence of lubricating oil and/or with (flammable) with possibility of leakage with combustion - Electric shock - Explosion risk electrical panels - Electric motors with risk of fire 	<ul style="list-style-type: none"> - Temporary lighting - Demarcated and unobstructed escape route - Unobstructed emergency doors - Autonomous breathing equipment - Where there is an electrical panel - (PPE suitable for intervention, energy isolation and de-energization and grounding stick) - Rubber floor for electrical panel testing - Portable firefighting systems - Fire extinguishers (CO2 and/or dry chemical powder)" - Fixed firefighting systems - Water Mist System - Fixed firefighting systems - Hydrants (Even if temporary) (Recommended practice) - Cabinets of materials for fire fighting - Portable firefighting systems - LGE - Cabinets of materials for fire fighting - Personal protective equipment - Emergency showers and eyewash - Oil leak mitigation kit


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5133.2	WELL PUMP SERVICE	<ul style="list-style-type: none"> - System located in room/compartment in the hull - High pressure with risk of leakage and water splashes - Opening and closing of SDV/BDV/XV, risk of leakage and oil splash - Electric shock - Explosion risk electrical panels - Electric motors with risk of fire 	<ul style="list-style-type: none"> - Temporary lighting - Demarcated and unobstructed escape route - Unobstructed emergency doors - Autonomous breathing equipment - Where there is an electrical panel - (PPE suitable for intervention, energy isolation and de-energization and grounding stick) - Rubber floor for electrical panel testing - Portable firefighting systems - Fire extinguishers (CO2 and/or dry chemical powder) - Fixed firefighting systems - Hydrants (Even if temporary) (Recommended practice) - Cabinets of materials for fire fighting - Personal protective equipment - Emergency showers and eye wash - Blocking and signaling of the tested circuit pipes - Oil leak mitigation kit 	
5134	COMPRESSED AIR	<ul style="list-style-type: none"> - Presence of lubricating oil and/or with (flammable) with possibility of leakage with combustion - Electric shock - Explosion risk electrical panels - Electric motors with risk of fire 	<ul style="list-style-type: none"> - Temporary lighting - Demarcated and unobstructed escape route - Unobstructed emergency doors - Where there is an electrical panel - (PPE suitable for intervention, energy isolation and de-energization and grounding stick) - Rubber floor for electrical panel testing - Portable firefighting systems - Fire extinguishers (CO2 and/or dry chemical powder) - Cabinets of materials for fire fighting - Blocking and signaling of the tested circuit pipes - Alignment for depressurization after test 	
5135	FUEL GAS	<ul style="list-style-type: none"> - Pressure Test (Leak test with N2+He) - High pressure with risk of inert gas leakage (N2+He) 	<ul style="list-style-type: none"> - Temporary lighting - Demarcated and unobstructed escape route - Unobstructed emergency doors - Where there is an electrical panel - (PPE suitable for intervention, energy isolation 	

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		<ul style="list-style-type: none"> - Risk of leakage of asphyxiating fluid - Opening and closing of SDV/BDV/XV, risk of leakage and oil splash - Explosion risk electrical panels 	<ul style="list-style-type: none"> and de-energization and grounding stick) - Rubber floor for electrical panel testing - Portable firefighting systems - Fire extinguishers (CO2 and/or dry chemical powder) - Cabinets of materials for fire fighting - Blocking and signaling of the tested circuit pipes - Alignment for depressurization after test 		
5138	START UP AIR	<ul style="list-style-type: none"> - Pressure Test (Leak test with N2+He) - High pressure with risk of inert gas leakage (N2+He); - Presence of lubricating oil and/or with (flammable) with possibility of leakage with combustion - Explosion risk electrical panels 	<ul style="list-style-type: none"> - Temporary lighting - Demarcated and unobstructed escape route - Unobstructed emergency doors - Where there is an electrical panel - (PPE suitable for intervention, energy isolation and de-energization and grounding stick) - Rubber floor for electrical panel testing - Rubber floor for electrical panel testing - Portable firefighting systems - Fire extinguishers (CO2 and/or dry chemical powder) - Cabinets of materials for fire fighting - Blocking and signaling of the tested circuit pipes - Alignment for depressurization after test - Oil leak mitigation kit 		
5139.1	HYDRAULIC POWER UNIT- Vessel	<ul style="list-style-type: none"> - High pressure, with risk of leaking and squirting hydraulic oil - Presence of oil (flammable) with possibility of leakage with combustion - Toxic fluid - Electric shock - Explosion risk electrical panels - Electric motors with risk of fire 	<ul style="list-style-type: none"> - Temporary lighting - Demarcated and unobstructed escape route - Unobstructed emergency doors - Where there is an electrical panel - (PPE suitable for intervention, energy isolation and de-energization and grounding stick) - Rubber floor for electrical panel testing - Portable firefighting systems - Fire extinguishers (CO2 and/or dry chemical powder) - Cabinets of materials for fire fighting - Fixed firefighting systems - Hydrants (Even if temporary) (Recommended practice) 		

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			<ul style="list-style-type: none"> - Cabinets of materials for fire fighting - Portable firefighting systems - LGE - Cabinets of materials for fire fighting - Oil leak mitigation kit 		
5139.2	HYDRAULIC POWER UNIT- Topside	<ul style="list-style-type: none"> - High pressure, with risk of leaking and squirting hydraulic oil - Presence of oil (flammable) with possibility of leakage with combustion - Toxic fluid - Electric shock - Explosion risk electrical panels - Electric motors with risk of fire 	<ul style="list-style-type: none"> - Temporary lighting - Demarcated and unobstructed escape route - Unobstructed emergency doors - Where there is an electrical panel - (PPE suitable for intervention, energy isolation and de-energization and grounding stick) - Rubber floor for electrical panel testing - Portable firefighting systems - Fire extinguishers (CO2 and/or dry chemical powder) - Cabinets of materials for fire fighting - Fixed firefighting systems - Hydrants (Even if temporary) (Recommended practice) - Cabinets of materials for fire fighting - Portable firefighting systems - LGE - Cabinets of materials for fire fighting - Oil leak mitigation kit 		
5139.3	HYDRAULIC POWER UNIT- Subsea	<ul style="list-style-type: none"> - High pressure, with risk of leaking and squirting hydraulic oil - Presence of oil (flammable) with possibility of leakage with combustion - Toxic fluid - Electric shock - Explosion risk electrical panels - Electric motors with risk of fire 	<ul style="list-style-type: none"> - Temporary lighting - Demarcated and unobstructed escape route - Unobstructed emergency doors - Where there is an electrical panel - (PPE suitable for intervention, energy isolation and de-energization and grounding stick) - Rubber floor for electrical panel testing - Portable firefighting systems - Fire extinguishers (CO2 and/or dry chemical powder) - Cabinets of materials for fire fighting - Fixed firefighting systems - Hydrants (Even if temporary) - Cabinets of materials for fire fighting - Portable firefighting systems - LGE 		

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				<ul style="list-style-type: none"> - Cabinets of materials for fire fighting - Oil leak mitigation kit
5143	NORMAL ELECTRICAL DISTRIBUTION	<ul style="list-style-type: none"> - Electricity generation and/or room with electrical panels (risk with electricity) 	<ul style="list-style-type: none"> - Portable firefighting systems - Fire extinguishers (CO2 and/or dry chemical powder) - Where there is an electrical panel - (PPE suitable for intervention, energy isolation and de-energization and grounding stick) - Rubber floor for electrical panel testing - Temporary lighting - Demarcated and unobstructed escape route - Unobstructed emergency doors - Autonomous breathing equipment; 	
5145	NORMAL LIGHTING	<ul style="list-style-type: none"> - Electricity generation and/or room with electrical panels (risk with electricity) 	<ul style="list-style-type: none"> - Portable firefighting systems - Fire extinguishers (CO2 and/or dry chemical powder) - Where there is an electrical panel - (PPE suitable for intervention, energy isolation and de-energization and grounding stick) - Rubber floor for electrical panel testing; 	
5147	ELECTRICAL TURBO GENERATOR (GTG - Gas Turbine Generator)	<ul style="list-style-type: none"> - System located in room/compartment in the hull - Electricity generation and/or room with electrical panels (risk with electricity) - Presence of fuel (flammable) - Presence of lubricating oil (flammable) with possibility of leakage with combustion - Presence of lubricating oil with potential for leakage and possibility of contact with skin and eyes - Hot and asphyxiating gases from combustion - Risk of burning with hot fluid and/or hot parts of the 	<ul style="list-style-type: none"> - Temporary lighting - Demarcated and unobstructed escape route - Unobstructed emergency doors - Autonomous breathing equipment - Where there is an electrical panel - (PPE suitable for intervention, energy isolation and de-energization and grounding stick) - Rubber floor for electrical panel testing - Fixed firefighting systems - Water Mist System - Fixed firefighting systems - Hydrants (Even if temporary) (Recommended practice) - Cabinets of materials for fire fighting - Portable firefighting systems - LGE - Cabinets of materials for fire fighting - Portable firefighting systems - Fire extinguishers 	

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		turbine and/or engines	(CO2 and dry chemical powder) <ul style="list-style-type: none"> - Personal protective equipment - Emergency showers and eyewash - Personal protective equipment - Clothing - Identification of hot parts - Check the presence of people inside the HOOD before activating the equipment, as well as the presence of fuel residues and cleaning of the place. - Check and remove temporary filters or mesh (mesh) used for oil flushing before starting the machines. - Keep firefighters on standby following the test. 	
5148	ESSENTIAL ELECTRICAL DISTRIBUTION	- Electricity generation and/or room with electrical panels (risk with electricity)	<ul style="list-style-type: none"> - Portable firefighting systems - Fire extinguishers (CO2 and/or dry chemical powder) - Where there is an electrical panel - (PPE suitable for intervention, energy isolation and de-energization and grounding stick) - Rubber floor for electrical panel testing - Temporary lighting, - Demarcated and unobstructed escape route - Unobstructed emergency doors - Autonomous breathing equipment; 	
5149	ESSENTIAL LIGHTING	- Electricity generation and/or room with electrical panels (risk with electricity)	<ul style="list-style-type: none"> - Portable firefighting systems - Fire extinguishers (CO2 and/or dry chemical powder) - Where there is an electrical panel - (PPE suitable for intervention, energy isolation and de-energization, grounding rod, risk of explosion in panel) - Rubber floor for electrical panel testing; 	
5241.1	INERT GAS for Cargo Tanks blanketing	<ul style="list-style-type: none"> - Risk of leakage of asphyxiating fluid - Risk of leakage and splashing of diesel oil (Fuel) - Presence of diesel oil (flammable) with possibility of leakage with combustion - Electric shock 	<ul style="list-style-type: none"> - Temporary lighting - Demarcated and unobstructed escape route - Unobstructed emergency doors - Autonomous breathing equipment - Portable firefighting systems - Fire extinguishers (CO2 and/or dry chemical powder) 	

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		<ul style="list-style-type: none"> - Explosion risk electrical panels - Electric motors with risk of fire 	<ul style="list-style-type: none"> - Where there is an electrical panel - (PPE suitable for intervention, energy isolation and de-energization and grounding stick) - Rubber floor for electrical panel testing; 	
5241.2	N2 GENERATOR FOR PROCESS PLANT	<ul style="list-style-type: none"> - Risk of leakage of asphyxiating fluid - Opening and closing of SDV/BDV/XV, risk of leakage and oil splash - Electric shock - Explosion risk electrical panels - Electric motors with risk of fire 	<ul style="list-style-type: none"> - Temporary lighting - Demarcated and unobstructed escape route - Unobstructed emergency doors - Autonomous breathing equipment - Portable firefighting systems - Fire extinguishers (CO2 and/or dry chemical powder) - Where there is an electrical panel - (PPE suitable for intervention, energy isolation and de-energization and grounding stick) - Rubber floor for electrical panel testing; 	
5241.3	N2 Generator for Flare system	<ul style="list-style-type: none"> - Risk of leakage of asphyxiating fluid - Opening and closing of SDV/BDV/XV, risk of leakage and oil splash - Electric shock - Explosion risk electrical panels - Electric motors with risk of fire 	<ul style="list-style-type: none"> - Temporary lighting - Demarcated and unobstructed escape route - Unobstructed emergency doors - Autonomous breathing equipment - Portable firefighting systems - Fire extinguishers (CO2 and/or dry chemical powder) - Where there is an electrical panel - (PPE suitable for intervention, energy isolation and de-energization and grounding stick) - Rubber floor for electrical panel testing - Oil leak mitigation kit 	
5252	AIR CONDITIONING	<ul style="list-style-type: none"> - System located in room/compartment in the hull - High pressure with risk of leakage and water splashes - Pressure Test (Leak test with N2+He) - High pressure with risk of inert gas leakage (N2+He); - High pressure with risk of leakage and splashing of water - Electric shock 	<ul style="list-style-type: none"> - Temporary lighting - Demarcated and unobstructed escape route - Unobstructed emergency doors - Autonomous breathing equipment - Where there is an electrical panel - (PPE suitable for intervention, energy isolation and de-energization and grounding stick); - Rubber floor for electrical panel testing - Portable firefighting systems - Fire extinguishers 	

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		<ul style="list-style-type: none"> - Explosion risk electrical panels - Electric motors with risk of fire - Opening and closing of SDV/BDV/XV, risk of leakage and oil splash. 	<ul style="list-style-type: none"> (CO2 and/or dry chemical powder) - Fixed firefighting systems - Hydrants (Even if temporary) - Cabinets of materials for fire fighting - Personal protective equipment - Emergency showers and eye wash - Blocking and signaling of the tested circuit pipes - Alignment for depressurization after test - Oil leak mitigation kit 	
5254/5 251	AIR INSUFFLATION	<ul style="list-style-type: none"> - System located in room/compartment in the hull - Electric shock - Explosion risk electrical panels - Electric motors with risk of fire 	<ul style="list-style-type: none"> - Temporary lighting - Demarcated and unobstructed escape route - Unobstructed emergency doors - Autonomous breathing equipment - Where there is an electrical panel - (PPE suitable for intervention, energy isolation and de-energization and grounding stick) - Rubber floor for electrical panel testing - Portable firefighting systems - Fire extinguishers (CO2 and/or dry chemical powder) 	
5255	AIR EXHAUSTION	<ul style="list-style-type: none"> - System located in room/compartment in the hull - Electric shock - Explosion risk electrical panels - Electric motors with risk of fire 	<ul style="list-style-type: none"> - Temporary lighting - Demarcated and unobstructed escape route - Unobstructed emergency doors - Autonomous breathing equipment - Where there is an electrical panel - (PPE suitable for intervention, energy isolation and de-energization and grounding stick) - Rubber floor for electrical panel testing - Portable firefighting systems - Fire extinguishers (CO2 and/or dry chemical powder) 	
5261	ELECTRICAL EMERGENCY GENERATOR	<ul style="list-style-type: none"> - System located in room/compartment in the hull - Electricity generation and/or room with electrical panels (risk with electricity) 	<ul style="list-style-type: none"> - Temporary lighting - Demarcated and unobstructed escape route - Unobstructed emergency doors - Autonomous breathing equipment - Where there is an electrical panel - (PPE suitable for 	



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		<ul style="list-style-type: none"> - Presence of fuel (flammable) - Presence of lubricating oil (flammable) with possibility of leakage with combustion - Presence of lubricating oil with potential for leakage and possibility of contact with skin and eyes - Hot and asphyxiating gases from combustion - Risk of burning with hot fluid and/or hot parts of the turbine and/or engines - Risk of suffocation in the room (if doors and dampers closed) 	<ul style="list-style-type: none"> intervention, energy isolation and de-energization and grounding stick); - Rubber floor for electrical panel testing - Portable firefighting systems - Fire extinguishers (CO2 and/or dry chemical powder) - Fixed firefighting systems - Water Mist System - Fixed firefighting systems - Hydrants (Even if temporary) (Recommended practice) - Cabinets of materials for fire fighting - Portable firefighting systems - LGE - Cabinets of materials for fire fighting - Personal protective equipment - Emergency showers and eyewash - Personal protective equipment - Clothing - Identification of hot parts - Keep firefighters on standby following the test.
<p>5262.1</p>	<p>ELECTRICAL AUXILIARY GENERATOR</p>	<ul style="list-style-type: none"> - System located in room/compartment in the hull - Electricity generation and/or room with electrical panels (risk with electricity) - Presence of fuel (flammable) - Presence of lubricating oil (flammable) with possibility of leakage with combustion - Presence of lubricating oil with potential for leakage and possibility of contact with skin and eyes - Hot and asphyxiating gases from combustion - Risk of burning with hot fluid and/or hot parts of the turbine and/or engines 	<ul style="list-style-type: none"> - Temporary lighting - Demarcated and unobstructed escape route - Unobstructed emergency doors - Autonomous breathing equipment - Where there is an electrical panel - (PPE suitable for intervention, energy isolation and de-energization and grounding stick) - Rubber floor for electrical panel testing - Portable firefighting systems - Fire extinguishers (CO2 and/or dry chemical powder) - Cabinets of materials for fire fighting - Portable firefighting systems - LGE - Cabinets of materials for fire fighting - Personal protective equipment - Emergency showers and eyewash - Personal protective equipment - Clothing - Identification of hot parts



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		<ul style="list-style-type: none"> - Risk of suffocation in the room (if doors and dampers closed) 	<ul style="list-style-type: none"> - Autonomous breathing equipment - Keep firefighters on standby following the test.
<p>5262.2</p>	<p>ELECTRICAL HULL GENERATOR 6.6 KV 7MW</p>	<ul style="list-style-type: none"> - System located in room/compartment in the hull - Electricity generation and/or room with electrical panels (risk with electricity) - Explosion risk electrical panels 	<ul style="list-style-type: none"> - Temporary lighting - Demarcated and unobstructed escape route - Unobstructed emergency doors - Autonomous breathing equipment - Where there is an electrical panel - (PPE suitable for intervention, energy isolation and de-energization and grounding stick) - Rubber floor for electrical panel testing - Portable firefighting systems - Fire extinguishers (CO2 and/or dry chemical powder) - Personal protective equipment – Clothing.
<p>5263</p>	<p>EMERGENCY LIGHTING</p>	<ul style="list-style-type: none"> - System located in room/compartment in the hull - Electricity generation and/or room with electrical panels (risk with electricity) - Explosive atmosphere 	<ul style="list-style-type: none"> - Temporary lighting - Demarcated and unobstructed escape route - Unobstructed emergency doors - Autonomous breathing equipment - Where there is an electrical panel - (PPE suitable for intervention, energy isolation and de-energization and grounding stick) - Rubber floor for electrical panel testing - Portable firefighting systems - Fire extinguishers (CO2 and/or dry chemical powder)

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				ESUP
			<ul style="list-style-type: none"> - Personal protective equipment - Clothing - Personal protective equipment - Emergency showers and eyewash 	
5264	TELECOMMUNICATION POWER	<ul style="list-style-type: none"> - System located in room/compartment in the hull - Electricity generation and/or room with electrical panels (risk with electricity) 	<ul style="list-style-type: none"> - Temporary lighting - Demarcated and unobstructed escape route - Unobstructed emergency doors - Autonomous breathing equipment - Where there is an electrical panel - (PPE suitable for intervention, energy isolation and de-energization, grounding rod, risk of explosion in panel); - Rubber floor for electrical panel testing - Portable firefighting systems - Fire extinguishers (CO2 and/or dry chemical powder) - Personal protective equipment - Clothing; 	
5265	DIRECT CURRENT AND UPS	<ul style="list-style-type: none"> - System located in room/compartment in the hull - Electricity generation and/or room with electrical panels (risk with electricity) 	<ul style="list-style-type: none"> - Temporary lighting - Demarcated and unobstructed escape route - Unobstructed emergency doors - Autonomous breathing equipment - Where there is an electrical panel - (PPE suitable for intervention, energy isolation and de-energization and grounding stick) - Rubber floor for electrical panel testing - Portable firefighting systems - Fire extinguishers (CO2 and/or dry chemical powder) - Personal protective equipment - Self-contained breathing apparatus - Personal protective equipment - Clothing - Personal protective equipment - Emergency showers and eyewash 	
5266	CARGO HANDLING	<ul style="list-style-type: none"> - Electric motors with risk of fire - Hoses handling 	<ul style="list-style-type: none"> - Portable firefighting systems - Fire extinguishers (CO2 and/or dry chemical powder) 	

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5267	CATHODIC PROTECTION	<ul style="list-style-type: none"> - Electricity generation and/or room with electrical panels (risk with electricity) - Access to Cathodes from inside the tank (confined space) 	<ul style="list-style-type: none"> - Portable firefighting systems - Fire extinguishers (CO2 and/or dry chemical powder) - Where there is an electrical panel - (PPE suitable for intervention, energy isolation and de-energization and grounding stick) - Rubber floor for electrical panel testing - Temporary lighting - Demarcated and unobstructed escape route - Autonomous breathing equipment 	
5268	PULL IN / PULL OUT STATION	<ul style="list-style-type: none"> - Risk of possible breakage of cables - Electric motors with risk of fire 	<ul style="list-style-type: none"> - Isolation of test and adjacent areas - Portable firefighting systems - Fire extinguishers (CO2 and/or dry chemical powder) 	
5269	EMERGENCY ELECTRICAL DISTRIBUTION	<ul style="list-style-type: none"> - System located in room/compartment in the hull - Electricity generation and/or room with electrical panels (risk with electricity) - Explosion risk electrical panels 	<ul style="list-style-type: none"> - Temporary lighting, - Demarcated and unobstructed escape route - Unobstructed emergency doors - Autonomous breathing equipment - Where there is an electrical panel - (PPE suitable for intervention, energy isolation and de-energization and grounding stick) - Rubber floor for electrical panel testing - Portable firefighting systems - Fire extinguishers (CO2 and/or dry chemical powder) - Personal protective equipment - Clothing; 	
5271	CARGO TANK CLEANING AND RECIRCULATION	<ul style="list-style-type: none"> - System located in room/compartment in the hull - Opening and closing of SDV/BDV/XV, risk of leakage and oil splash - Electric motors with risk of fire - Electric shock - Explosion risk electrical panels - Risk of water leakage in tests 	<ul style="list-style-type: none"> - Temporary lighting - Demarcated and unobstructed escape route - Unobstructed emergency doors - Autonomous breathing equipment - Where there is an electrical panel - (PPE suitable for intervention, energy isolation and de-energization and grounding stick) - Rubber floor for electrical panel testing - Portable firefighting systems - Fire extinguishers (CO2 and/or dry chemical powder) 	

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5310	SEWAGE	<ul style="list-style-type: none"> - System located in room/compartment in the hull - Opening and closing of SDV/BDV/XV, risk of leakage and oil splash - Electric motors with risk of fire - Electric shock - Explosion risk electrical panels - Risk of water leakage in tests 	<ul style="list-style-type: none"> - Temporary lighting - Demarcated and unobstructed escape route - Unobstructed emergency doors - Autonomous breathing equipment - Where there is an electrical panel - (PPE suitable for intervention, energy isolation and de-energization and grounding stick) - Rubber floor for electrical panel testing - Portable firefighting systems - Fire extinguishers (CO2 and/or dry chemical powder) - Oil leak mitigation kit 	
5331	PRODUCED WATER TREATMENT	<ul style="list-style-type: none"> - System located in room/compartment in the hull - High pressure with risk of leakage and water splashes - Pressure Test (Leak test with N2+He) - High pressure with risk of inert gas leakage - Presence of lubricating oil (flammable) with possibility of leakage with combustion - High pressure with risk of leakage and splashing of toxic/corrosive fluid (Chemical Injection and CIP) - Electric shock - Explosion risk electrical panels - Electric motors with risk of fire - Opening and closing of SDV/BDV/XV, risk of leakage and oil splash. 	<ul style="list-style-type: none"> - Temporary lighting - Demarcated and unobstructed escape route - Unobstructed emergency doors - Autonomous breathing equipment - Where there is an electrical panel - (PPE suitable for intervention, energy isolation and de-energization and grounding stick) - Rubber floor for electrical panel testing - Portable firefighting systems - Fire extinguishers (CO2 and/or dry chemical powder) - Fixed firefighting systems - Hydrants (Even if temporary) - Cabinets of materials for fire fighting - Personal protective equipment - Emergency showers and eye wash - Blocking and signaling of the tested circuit pipes - Alignment for depressurization after test - Oil leak mitigation kit 	

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5335	BALLAST	<ul style="list-style-type: none"> - System located in room/compartment in the hull - Opening and closing of SDV/BDV/XV, risk of leakage and oil splash - Electric motors with risk of fire - Electric shock - Explosion risk electrical panels - Risk of water leakage in tests 	<ul style="list-style-type: none"> - Temporary lighting - Demarcated and unobstructed escape route - Unobstructed emergency doors - Autonomous breathing equipment - Where there is an electrical panel - (PPE suitable for intervention, energy isolation and de-energization and grounding stick) - Rubber floor for electrical panel testing - Portable firefighting systems - Fire extinguishers (CO2 and/or dry chemical powder) - Oil leak mitigation kit 	
5336.1	DRAINAGE / SLOP (OPEN DRAIN)	<ul style="list-style-type: none"> - System located in room/compartment in the hull - Opening and closing of SDV/BDV/XV, risk of leakage and oil splash - Electric motors with risk of fire - Electric shock - Risk of water leakage in tests 	<ul style="list-style-type: none"> - Temporary lighting - Demarcated and unobstructed escape route - Unobstructed emergency doors - Autonomous breathing equipment - Where there is an electrical panel - (PPE suitable for intervention, energy isolation and de-energization and grounding stick) - Rubber floor for electrical panel testing - Portable firefighting systems - Fire extinguishers (CO2 and/or dry chemical powder) 	
5336.2	DRAINAGE / SLOP (CLOSED DRAIN)	<ul style="list-style-type: none"> - System located in room/compartment in the hull - Opening and closing of SDV/BDV/XV, risk of leakage and oil splash - Electric motors with risk of fire - Electric shock - Explosion risk electrical panels - Risk of water leakage in tests 	<ul style="list-style-type: none"> - Temporary lighting - Demarcated and unobstructed escape route - Unobstructed emergency doors - Autonomous breathing equipment - Where there is an electrical panel - (PPE suitable for intervention, energy isolation and de-energization and grounding stick) - Rubber floor for electrical panel testing - Portable firefighting systems - Fire extinguishers (CO2 and/or dry chemical powder) - Oil leak mitigation kit 	

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5412	FLARE and FGRS	<ul style="list-style-type: none"> - Pressure Test (Leak test with N2+He) - High pressure with risk of leakage and lubricating oil splashes - Presence of lubricating oil (flammable) with possibility of leakage with combustion - Opening and closing of SDV/BDV/XV, risk of leakage and oil splash - Electric shock - Explosion risk electrical panels - Electric motors with risk of fire 	<ul style="list-style-type: none"> - Temporary lighting - Demarcated and unobstructed escape route - Unobstructed emergency doors - Autonomous breathing equipment - Where there is an electrical panel - (PPE suitable for intervention, energy isolation and de-energization and grounding stick) - Rubber floor for electrical panel testing - Portable firefighting systems - Fire extinguishers (CO2 and/or dry chemical powder) - Fixed firefighting systems - Hydrants (Even if temporary) (Recommended practice) - Cabinets of materials for fire fighting - Personal protective equipment - Emergency showers and eye wash - Blocking and signaling of the tested circuit pipes - Alignment for depressurization after test - Oil leak mitigation kit 	
5415	ATMOSPHERIC VENT	- N/A	- N/A	
5423	FIREFIGHTING WATER	<p>Firefighting</p> <ul style="list-style-type: none"> - High pressure with risk of leakage and water splashes <p>Combustion engine</p> <ul style="list-style-type: none"> - Presence of lubricating oil and/or with (flammable) with possibility of leakage with combustion - Presence of fuel (flammable) - Presence of lubricating oil with potential for leakage and possibility of contact with skin and eyes - Hot and asphyxiating gases from combustion - Risk of burning with hot fluid and/or hot parts of the 	<ul style="list-style-type: none"> - Temporary lighting - Demarcated and unobstructed escape route - Unobstructed emergency doors - Autonomous breathing equipment - Where there is an electrical panel - (PPE suitable for intervention, energy isolation and de-energization and grounding stick) - Rubber floor for electrical panel testing - Fixed firefighting systems - Water Mist System - Fixed firefighting systems - Hydrants (Even if temporary) (Recommended practice) - Cabinets of materials for fire fighting - Portable firefighting systems - LGE - Cabinets of materials for fire fighting - Portable firefighting systems - Fire extinguishers 	



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		<p>turbine and/or engines</p> <p>Firefighting pump</p> <ul style="list-style-type: none"> - High pressure with risk of leakage and water splashes - Electric shock - Electric motors with risk of fire jockey pump - High pressure with risk of leakage and water splashes - Electric shock - Electric motors with risk of fire 	<p>(CO2 and dry chemical powder)</p> <ul style="list-style-type: none"> - Personal protective equipment - Emergency showers and eyewash - Personal protective equipment - Clothing - Identification of hot parts - Oil leak mitigation kit
5424	FIREFIGHTING FOAM	<ul style="list-style-type: none"> - Risk of leakage and splashing of toxic or corrosive fluid - Electric shock - Explosion risk electrical panels - Electric motors with risk of fire 	<ul style="list-style-type: none"> - Temporary lighting - Demarcated and unobstructed escape route - Unobstructed emergency doors - Autonomous breathing equipment - Where there is an electrical panel - (PPE suitable for intervention, energy isolation and de-energization and grounding stick) - Rubber floor for electrical panel testing - Personal protective equipment - Emergency showers and eyewash - Oil leak mitigation kit
5425	FIREFIGHTING INERT GAS	<ul style="list-style-type: none"> - Risk of leakage of asphyxiating fluid - High pressure with risk of leakage of inert gas (CO2 or IG 541) - Risk of breakage of locks and hinges of the doors of the rooms - Inadvertent triggering in rooms protected by the system; 	<ul style="list-style-type: none"> - Temporary lighting, - Demarcated and unobstructed escape route - Unobstructed emergency doors - Autonomous breathing equipment - Use Petrobras procedure PE-2SRG-00373;
5428	FIREFIGHTING PORTABLE EQUIPMENT	- N/A	- N/A
5431	LIFE SAVING	- N/A	- N/A

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5511	TELECOMMUNICATION SPECIALIZED	<ul style="list-style-type: none"> - System located in room/compartment in the hull - Electricity generation and/or room with electrical panels (risk with electricity) - Explosion risk electrical panels 	<ul style="list-style-type: none"> - Temporary lighting - Demarcated and unobstructed escape route - Unobstructed emergency doors - Autonomous breathing equipment - Where there is an electrical panel - (PPE suitable for intervention, energy isolation and de-energization and bar with hook) - Rubber floor for electrical panel testing - Portable firefighting systems - Fire extinguishers (CO2 and/or dry chemical powder) - Personal protective equipment - Clothing; 	
5512	TELECOMMUNICATION TRANSMISSION	<ul style="list-style-type: none"> - System located in room/compartment in the hull - Electricity generation and/or room with electrical panels (risk with electricity) - Explosion risk electrical panels 	<ul style="list-style-type: none"> - Temporary lighting - Demarcated and unobstructed escape route - Unobstructed emergency doors - Autonomous breathing equipment - Where there is an electrical panel - (PPE suitable for intervention, energy isolation and de-energization and grounding stick) - Rubber floor for electrical panel testing - Portable firefighting systems - Fire extinguishers (CO2 and/or dry chemical powder) - Personal protective equipment - Clothing; 	
5513	VIDEOCONFERENCE	<ul style="list-style-type: none"> - System located in room/compartment in the hull - Electricity generation and/or room with electrical panels (risk with electricity) - Explosion risk electrical panels 	<ul style="list-style-type: none"> - Temporary lighting - Demarcated and unobstructed escape route - Unobstructed emergency doors - Autonomous breathing equipment - Where there is an electrical panel - (PPE suitable for intervention, energy isolation and de-energization and grounding stick) - Rubber floor for electrical panel testing - Portable firefighting systems - Fire extinguishers (CO2 and/or dry chemical powder) - Personal protective equipment - Clothing; 	


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5514	CLOSED-CIRCUIT TELEVISION (CCTV)	<ul style="list-style-type: none"> - System located in room/compartment in the hull - Electricity generation and/or room with electrical panels (risk with electricity) - Explosion risk electrical panels 	<ul style="list-style-type: none"> - Temporary lighting - Demarcated and unobstructed escape route - Unobstructed emergency doors - Autonomous breathing equipment - Where there is an electrical panel - (PPE suitable for intervention, energy isolation and de-energization, grounding rod, risk of explosion in panel); - Rubber floor for electrical panel testing - Portable firefighting systems - Fire extinguishers (CO2 and/or dry chemical powder) - Personal protective equipment - Clothing; 	
5515	OPERATIONAL RADIO	<ul style="list-style-type: none"> - System located in room/compartment in the hull - Electricity generation and/or room with electrical panels (risk with electricity) - Explosion risk electrical panels 	<ul style="list-style-type: none"> - Temporary lighting - Demarcated and unobstructed escape route - Unobstructed emergency doors - Autonomous breathing equipment - Where there is an electrical panel - (PPE suitable for intervention, energy isolation and de-energization and grounding stick) - Rubber floor for electrical panel testing - Portable firefighting systems - Fire extinguishers (CO2 and/or dry chemical powder) - Personal protective equipment - Clothing; 	
5516	TELECOMMUNICATION VOICE	<ul style="list-style-type: none"> - System located in room/compartment in the hull - Electricity generation and/or room with electrical panels (risk with electricity) - Explosion risk electrical panels 	<ul style="list-style-type: none"> - Temporary lighting - Demarcated and unobstructed escape route - Unobstructed emergency doors - Autonomous breathing equipment - Where there is an electrical panel - (PPE suitable for intervention, energy isolation and de-energization and grounding stick) - Rubber floor for electrical panel testing - Portable firefighting systems - Fire extinguishers (CO2 and/or dry chemical powder) - Personal protective equipment - Clothing; 	

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5517	TELECOMMUNICATION DATA	<ul style="list-style-type: none"> - System located in room/compartment in the hull - Electricity generation and/or room with electrical panels (risk with electricity) - Explosion risk electrical panels 	<ul style="list-style-type: none"> - Temporary lighting - Demarcated and unobstructed escape route - Unobstructed emergency doors - Autonomous breathing equipment - Where there is an electrical panel - (PPE suitable for intervention, energy isolation and de-energization and grounding stick) - Rubber floor for electrical panel testing - Portable firefighting systems - Fire extinguishers (CO2 and/or dry chemical powder) - Personal protective equipment - Clothing; 	
5518	PUBLIC ADDRESS AND GENERAL ALARM (PAGA)	<ul style="list-style-type: none"> - System located in room/compartment in the hull - Electricity generation and/or room with electrical panels (risk with electricity) - Explosion risk electrical panels 	<ul style="list-style-type: none"> - Temporary lighting - Demarcated and unobstructed escape route - Unobstructed emergency doors - Autonomous breathing equipment - Where there is an electrical panel - (PPE suitable for intervention, energy isolation and de-energization and grounding stick) - Rubber floor for electrical panel testing - Portable firefighting systems - Fire extinguishers (CO2 and/or dry chemical powder) - Personal protective equipment - Clothing; 	
5519 /5590)	TELEVISION SYSTEM (FORMER TELESUPERVISION SYSTEM)	<ul style="list-style-type: none"> - System located in room/compartment in the hull - Electricity generation and/or room with electrical panels (risk with electricity) - Explosion risk electrical panels 	<ul style="list-style-type: none"> - Temporary lighting, - Demarcated and unobstructed escape route - Unobstructed emergency doors - Autonomous breathing equipment - Where there is an electrical panel - (PPE suitable for intervention, energy isolation and de-energization and grounding stick) - Rubber floor for electrical panel testing - Portable firefighting systems - Fire extinguishers (CO2 and/or dry chemical powder) - Personal protective equipment - Clothing; 	

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551A	TELECOMMUNICATION INFRASTRUCTURE	<ul style="list-style-type: none"> - System located in room/compartment in the hull - Electricity generation and/or room with electrical panels (risk with electricity) - Explosion risk electrical panels 	<ul style="list-style-type: none"> - Temporary lighting - Demarcated and unobstructed escape route - Unobstructed emergency doors - Autonomous breathing equipment - Where there is an electrical panel - (PPE suitable for intervention, energy isolation and de-energization and grounding stick) - Rubber floor for electrical panel testing - Portable firefighting systems - Fire extinguishers (CO2 and/or dry chemical powder) - Personal protective equipment - Clothing; 	
552C	INFRASTRUCTURE FOR AUTOMATION CORE NETWORK	<ul style="list-style-type: none"> - System located in room/compartment in the hull - Electricity generation and/or room with electrical panels (risk with electricity) - Explosion risk electrical panels 	<ul style="list-style-type: none"> - Temporary lighting - Demarcated and unobstructed escape route - Unobstructed emergency doors - Autonomous breathing equipment - Where there is an electrical panel - (PPE suitable for intervention, energy isolation and de-energization and grounding stick) - Rubber floor for electrical panel testing - Portable firefighting systems - Fire extinguishers (CO2 and/or dry chemical powder) - Personal protective equipment - Clothing; 	
5521	ENVIRONMENTAL MONITORING	<ul style="list-style-type: none"> - System located in room/compartment in the hull - Electricity generation and/or room with electrical panels (risk with electricity) - Explosion risk electrical panels 	<ul style="list-style-type: none"> - Temporary lighting - Demarcated and unobstructed escape route - Unobstructed emergency doors - Autonomous breathing equipment - Where there is an electrical panel - (PPE suitable for intervention, energy isolation and de-energization and grounding stick) - Rubber floor for electrical panel testing - Portable firefighting systems - Fire extinguishers (CO2 and/or dry chemical powder) - Personal protective equipment - Self-contained breathing apparatus 	

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				<ul style="list-style-type: none"> - Personal protective equipment - Clothing; 	
5522	FIRE AND GAS DETECTION	<ul style="list-style-type: none"> - System located in room/compartment in the hull - Electricity generation and/or room with electrical panels (risk with electricity) - Explosion risk electrical panels 	<ul style="list-style-type: none"> - Temporary lighting - Demarcated and unobstructed escape route - Unobstructed emergency doors - Autonomous breathing equipment - Where there is an electrical panel - (PPE suitable for intervention, energy isolation and de-energization and grounding stick) - Rubber floor for electrical panel testing - Portable firefighting systems - Fire extinguishers (CO2 and/or dry chemical powder) - Personal protective equipment - Clothing; 		
5523	AUTOMATION / SUPERVISION AND OPERATION CONTROL	<ul style="list-style-type: none"> - System located in room/compartment in the hull - Electricity generation and/or room with electrical panels (risk with electricity) - Explosion risk electrical panels 	<ul style="list-style-type: none"> - Temporary lighting - Demarcated and unobstructed escape route - Unobstructed emergency doors - Autonomous breathing equipment - Where there is an electrical panel - (PPE suitable for intervention, energy isolation and de-energization and grounding stick) - Rubber floor for electrical panel testing - Portable firefighting systems - Fire extinguishers (CO2 and/or dry chemical powder) - Personal protective equipment - Clothing; 		
5524	SUBSEA / RESERVOIR MONITORING	<ul style="list-style-type: none"> - System located in room/compartment in the hull - Electricity generation and/or room with electrical panels (risk with electricity) - Explosion risk electrical panels 	<ul style="list-style-type: none"> - Temporary lighting - Demarcated and unobstructed escape route - Unobstructed emergency doors - Autonomous breathing equipment - Where there is an electrical panel - (PPE suitable for intervention, energy isolation and de-energization and grounding stick) - Rubber floor for electrical panel testing - Portable firefighting systems - Fire extinguishers (CO2 and/or dry chemical powder) 		

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						<ul style="list-style-type: none"> - Personal protective equipment - Clothing;
5525	TANK O2/HC SAMPLING SYSTEM	<ul style="list-style-type: none"> - System located in room/cargo tank - Electric shock - Electrical panels with risk of explosion in panel 				<ul style="list-style-type: none"> - Temporary lighting - Demarcated and unobstructed escape route - Autonomous breathing equipment - Where there is an electrical panel - (PPE suitable for intervention, energy isolation and de-energization and grounding stick)
5529	RISER MONITORING	<ul style="list-style-type: none"> - System located in room/compartment in the hull - Electricity generation and/or room with electrical panels (risk with electricity) - Explosion risk electrical panels 				<ul style="list-style-type: none"> - Temporary lighting - Demarcated and unobstructed escape route - Unobstructed emergency doors - Autonomous breathing equipment - Where there is an electrical panel - (PPE suitable for intervention, energy isolation and de-energization and grounding stick) - Rubber floor for electrical panel testing - Portable firefighting systems - Fire extinguishers (CO2 and/or dry chemical powder) - Personal protective equipment - Clothing;
5537	POSITIONING	<ul style="list-style-type: none"> - System located in room/compartment in the hull - Electricity generation and/or room with electrical panels (risk with electricity) - Explosion risk electrical panels 				<ul style="list-style-type: none"> - Temporary lighting - Demarcated and unobstructed escape route - Unobstructed emergency doors - Autonomous breathing equipment - Where there is an electrical panel - (PPE suitable for intervention, energy isolation and de-energization and grounding stick) - Rubber floor for electrical panel testing - Portable firefighting systems - Fire extinguishers (CO2 and/or dry chemical powder) - Personal protective equipment - Clothing;
5591	AUTOMATION NETWORK	<ul style="list-style-type: none"> - System located in room/compartment in the hull - Electricity generation and/or room with electrical 				<ul style="list-style-type: none"> - Temporary lighting - Demarcated and unobstructed escape route - Unobstructed emergency doors

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		panels (risk with electricity) - Explosion risk electrical panels	- Autonomous breathing equipment - Where there is an electrical panel - (PPE suitable for intervention, energy isolation and de-energization and grounding stick) - Rubber floor for electrical panel testing - Portable firefighting systems - Fire extinguishers (CO2 and/or dry chemical powder) - Personal protective equipment - Clothing;	
6410	FILLING STATION	- Storage of flammable material - Electric shock - Explosion risk electrical panels - Electric motors with risk of fire	- Demarcated and unobstructed escape route - Unobstructed emergency doors - Autonomous breathing equipment - Portable firefighting systems - Fire extinguishers (CO2 and/or dry chemical powder) - Personal protective equipment - Clothing;	
6650	AUXILIARY VESSEL MONITORING AND CONTROL	- System located in room/compartment in the hull - Electric motors with risk of fire - Electric shock - Electrical panels with risk of explosion in panel - Risk of water leakage in the tests	- Temporary lighting - Demarcated and unobstructed escape route - Unobstructed emergency doors - Autonomous breathing equipment - Where there is an electrical panel - (PPE suitable for intervention, energy isolation and de-energization and grounding stick) - Portable firefighting systems - Fire extinguishers (CO2 and/or dry chemical powder)	
8214	GALLEY	- System located in room/compartment in the hull	- Temporary lighting - Demarcated and unobstructed escape route - Unobstructed emergency doors - Autonomous breathing equipment - Portable firefighting systems - Fire extinguishers (CO2 and/or dry chemical powder)	
8215	HOSPITAL	- System located in room/compartment in the hull	- Temporary lighting - Demarcated and unobstructed escape route - Unobstructed emergency doors - Autonomous breathing equipment	

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						<ul style="list-style-type: none"> - Portable firefighting systems - Fire extinguishers (CO2 and/or dry chemical powder)
8217	COMMUNICATION CENTRAL STATION	<ul style="list-style-type: none"> - System located in room/compartment in the hull - Electricity generation and/or room with electrical panels (risk with electricity) - Explosion risk electrical panels 				<ul style="list-style-type: none"> - Temporary lighting - Demarcated and unobstructed escape route - Unobstructed emergency doors - Autonomous breathing equipment - Where there is an electrical panel - (PPE suitable for intervention, energy isolation and de-energization and grounding stick) - Rubber floor for electrical panel testing - Portable firefighting systems - Fire extinguishers (CO2 and/or dry chemical powder) - Personal protective equipment - Clothing;
8221	CENTRAL CONTROL ROOM	<ul style="list-style-type: none"> - System located in room/compartment in the hull - Electricity generation and/or room with electrical panels (risk with electricity) 				<ul style="list-style-type: none"> - Temporary lighting - Demarcated and unobstructed escape route - Unobstructed emergency doors - Autonomous breathing equipment - Where there is an electrical panel - (PPE suitable for intervention, energy isolation and de-energization and grounding stick) - Rubber floor for electrical panel testing - Portable firefighting systems - Fire extinguishers (CO2 and/or dry chemical powder) - Personal protective equipment - Clothing;
8222	LABORATORY	<ul style="list-style-type: none"> - System located in room/compartment in the hull 				<ul style="list-style-type: none"> - Temporary lighting - Demarcated and unobstructed escape route - Unobstructed emergency doors - Autonomous breathing equipment - Portable firefighting systems - Fire extinguishers (CO2 and/or dry chemical powder)

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8224	MAINTENANCE WORKSHOP	<ul style="list-style-type: none"> - System located in room/compartment in the hull - Electricity generation and/or room with electrical panels (risk with electricity) - Machine tools - Explosion risk electrical panels 	<ul style="list-style-type: none"> - Temporary lighting - Demarcated and unobstructed escape route - Unobstructed emergency doors - Autonomous breathing equipment - Where there is an electrical panel - (PPE suitable for intervention, energy isolation and de-energization and grounding stick) - Rubber floor for electrical panel testing - Portable firefighting systems - Fire extinguishers (CO2 and/or dry chemical powder) - Personal protective equipment - Clothing; 	
8226	WAREHOUSE	<ul style="list-style-type: none"> - System located in room/compartment in the hull - Storage of flammable material 	<ul style="list-style-type: none"> - Temporary lighting - Demarcated and unobstructed escape route - Unobstructed emergency doors - Autonomous breathing equipment - Where there is an electrical panel - (PPE suitable for intervention, energy isolation and de-energization and grounding stick) - Rubber floor for electrical panel testing - Portable firefighting systems - Fire extinguishers (CO2 and/or dry chemical powder) - Personal protective equipment - Clothing; 	
8230	LAUNDRY	<ul style="list-style-type: none"> - System located in room/compartment in the hull 	<ul style="list-style-type: none"> - Temporary lighting - Demarcated and unobstructed escape route - Unobstructed emergency doors - Autonomous breathing equipment - Portable firefighting systems - Fire extinguishers (CO2 and/or dry chemical powder) 	
8233	MALE AND FEMALE CHANGE ROOM	<ul style="list-style-type: none"> - System located in room/compartment in the hull 	<ul style="list-style-type: none"> - Temporary lighting - Demarcated and unobstructed escape route - Unobstructed emergency doors - Autonomous breathing equipment - Portable firefighting systems - Fire extinguishers (CO2 and/or dry chemical powder) 	

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8237	CABINS AND ACCOMODATION DECK SYSTEM	- System located in room/compartment in the hull	<ul style="list-style-type: none"> - Temporary lighting - Demarcated and unobstructed escape route - Unobstructed emergency doors - Autonomous breathing equipment - Portable firefighting systems - Fire extinguishers (CO2 and/or dry chemical powder) 					
8238	RECREATION ROOMS/GYMNASIUM	- System located in room/compartment in the hull	<ul style="list-style-type: none"> - Temporary lighting - Demarcated and unobstructed escape route - Unobstructed emergency doors - Autonomous breathing equipment - Portable firefighting systems - Fire extinguishers (CO2 and/or dry chemical powder) 					
8243	AUDITORIUM	- System located in room/compartment in the hull	<ul style="list-style-type: none"> - Temporary lighting - Demarcated and unobstructed escape route - Unobstructed emergency doors - Autonomous breathing equipment - Portable firefighting systems - Fire extinguishers (CO2 and/or dry chemical powder) 					
8249	LIBRARY	- System located in room/compartment in the hull	<ul style="list-style-type: none"> - Temporary lighting - Demarcated and unobstructed escape route - Unobstructed emergency doors - Autonomous breathing equipment - Portable firefighting systems - Fire extinguishers (CO2 and/or dry chemical powder) 					
N/A	ON SHORE N2/He LEAK TEST	<ul style="list-style-type: none"> - Pressure test - The maintenance of pressurized lines for the offshore stage must be clearly identified throughout the pressurization time 	<ul style="list-style-type: none"> - Recommendations regarding pressure tests, signaling of tested circuits, isolation of adjacent areas must be taken into account, as well as test execution times must be compatible with the lowest flow of people in the vicinity - Blocking and signaling of the pipes of the tested circuit - Alignment for depressurization after test 					



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<p>N/A</p>	<p>HYDRAULIC AND LUBE OIL SYSTEMS FLUSHING</p>	<ul style="list-style-type: none"> - Pressure test - Give correct destination and treatment of the oil used in the activity - Presence of lubricating oil (flammable) with possibility of leakage with combustion; - Presence of lubricating oil with potential for leakage and possibility of contact with skin and eyes; 	<ul style="list-style-type: none"> - Recommendations regarding pressure tests, signaling of tested circuits, isolation of adjacent areas must be taken into account, as well as test execution times must be compatible with the lowest flow of people in the vicinity - Portable firefighting systems - Fire extinguishers (CO2 and dry chemical powder) - Personal protective equipment - Emergency showers and eyewash - Blocking and signaling of the pipes of the tested circuit - Alignment for depressurization after test
<p>N/A</p>	<p>LINES STEAM BLOWING</p>	<ul style="list-style-type: none"> - Risk of steam leakage - Risk of burning with steam and/or hot surfaces - High pressure with risk of leakage and water splashes 	<ul style="list-style-type: none"> - Temporary lighting - Demarcated and unobstructed escape route - Unobstructed emergency doors - Autonomous breathing equipment - Fixed firefighting systems - Hydrants (Even if temporary) (Recommended practice) - Cabinets of materials for fire fighting - Portable firefighting systems - Fire extinguishers (CO2 and dry chemical powder) - Personal protective equipment - Clothing - Identification of hot parts - Check and remove temporary filters or mesh (mesh) used for flushing