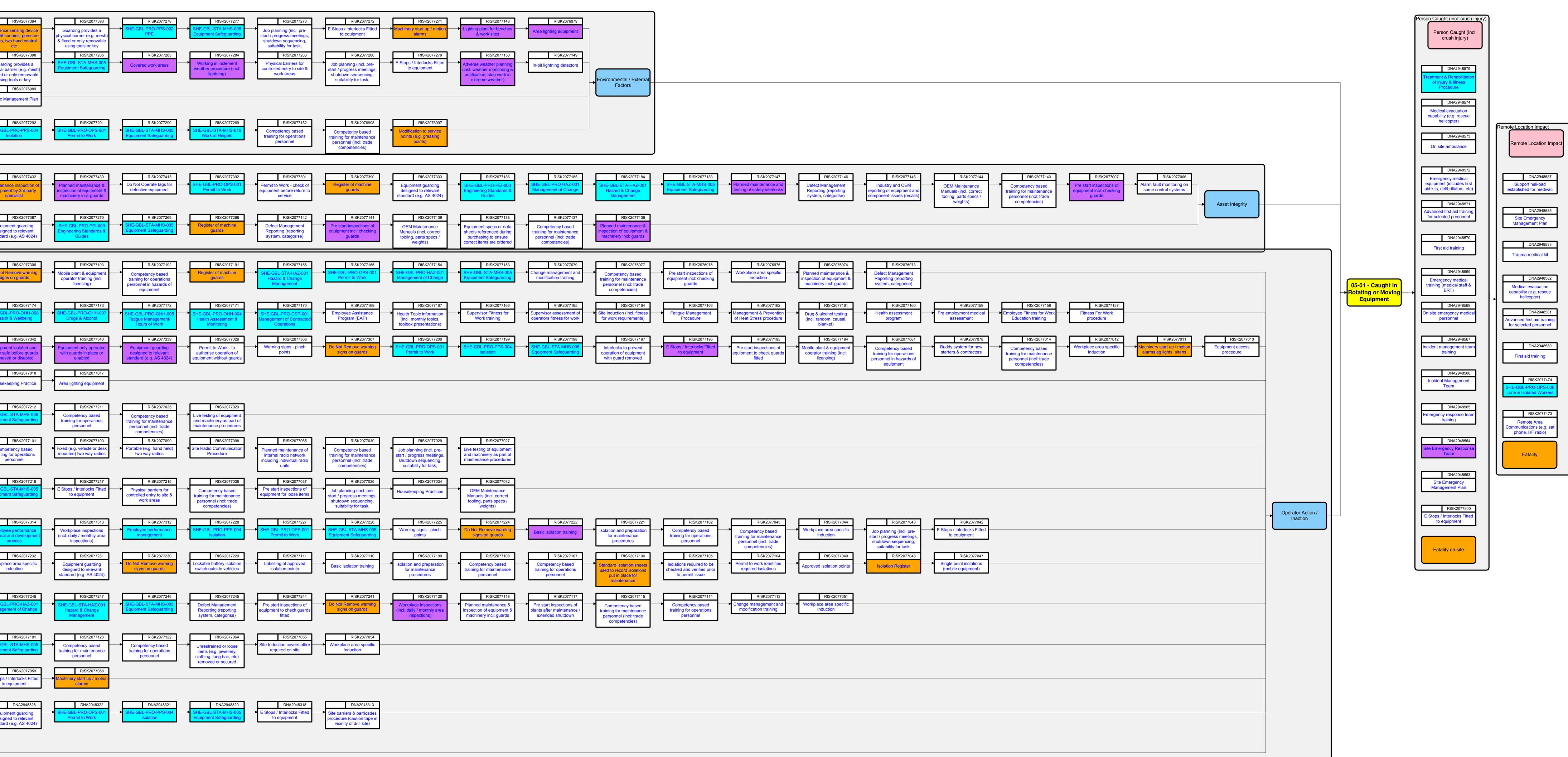
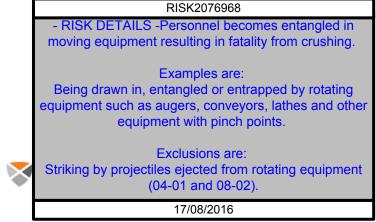
Environmental / External Factor	DNA2948591	DNA2948551	DNA2948544	DNA2948542	DNA2948540	RISK2077395	RI
Poor visibility (e.g. dust,	Physical barriers for	Adverse weather planning	Working in inclement	PPE - Clear safety glasses	Equipment guarding	Increased clerarances to	Presence sen
night conditions)	controlled entry to site & work areas	(incl: weather monitoring & notification, stop work in	weather procedure (incl: lightning)	for low visibility conditions	designed to relevant standard (e.g. AS 4024)	remove pinch points	eg light curtair plates, two ha
		extreme weather)	ingitiality)				etc
	DNA2948550	DNA2948546	DNA2948488	DNA2948487	RISK2077400	RISK2077399	RI
Poor operating conditions (e.g. wet,	PPE - Non-slip footware	 Equipment guarding designed to relevant 	 Drill pad preparation standard 	Drill pad preparation	 Increased clerarances to remove pinch points 	Presence sensing device	Guarding p
muddy, high winds, etc.)		standard (e.g. AS 4024)	otandara	(includes removal of trip hazards, drainage, leveling		eg light curtains, pressure plates, two hand control	physical barrier & fixed or only
				of pad base, etc)		etc	using tool
Impact by yabiala ar	DNA2948557	DNA2948556	DNA2948555 2m bund isolate in pit drill	DNA2948553 Drill pad preparation	DNA2948552	RISK2076990	RI
Impact by vehicle or Helo down wash	Equipment guarding designed to relevant	 Drill rig shut-down prior to helo operations (e.g. 	rigs from traffic	standard	Drill pad preparation (includes removal of trip	Job planning (incl. pre- start / progress meetings,	Traffic Manag
	standard (e.g. AS 4024)	landing, sling loading or take-off)			hazards, drainage, leveling of pad base, etc)	shutdown sequencing, suitability for task,	
	DNA2948561	DNA2948560	RISK2077405	RISK2077404	RISK2077403	RISK2077293	RI
Access / egress to	Equipment guarding	Service activites vicinity of	Increased clerarances to	Presence sensing device	Guarding provides a	SHE-GBL-PRO-PEI-003	→ SHE-GBL-PR
equipment (incl: service points etc.)	designed to relevant standard (e.g. AS 4024)	rotating equipment is conducted during pre-start	remove pinch points	eg light curtains, pressure plates, two hand control	physical barrier (e.g. mesh) & fixed or only removable	Engineering Standards & Guides	Isolat
		when equipment is shutdown		etc	using tools or key		
Asset Integrity							
Defective / Ineffective /	RISK2077502	RISK2077445	RISK2077444	RISK2077443	RISK2077442	RISK2077441	RI
missing safety interlocks / guards	Equipment with defective	Pre start inspections of plants after maintenance /	MFG-STA-MNT-002 Instrument Maintenance	MFG-GBL-PRO-MNT-206	MFG-GBL-PRO-MNT-101 PM Tasklist Procedure	MFG-STA-MNT-001 Maintenance Management	Maintenance i equipment b
interfection, guarde	guards / safety interlocks removed from service e.g	extended shutdown	and Calibration	Defeat System		System	specia
	locked out						
Equipment wear and	RISK2077440	RISK2077439	RISK2077438	RISK2077437	RISK2077431	RISK2077414	RI
tear (through normal operation, corrosion,	MFG-STA-MNT-002	MFG-GBL-PRO-MNT-206	MFG-GBL-PRO-MNT-101	MFG-STA-MNT-001	Maintenance inspection of	Do Not Operate tags for	Equipment
incl: safety interlocks & guarding)	Instrument Maintenance and Calibration	Inspection Deferral and Defeat System	PM Tasklist Procedure	Maintenance Management System	equipment by 3rd party specialist	defective equipment	designed to standard (e.g
guarang	and calibration	Deleat Cystem		Cyclem	opediator		Standard (c.g
Operator Action / Inaction							
Unauthorised	DNA2948593	DNA2948474	RISK2077508	RISK2077507	RISK2077335	RISK2077331	RI
modifications of	Warning signs in place on	Use of remote casings on	Mod number linked to	Permit to work requires	Equipment guarding	Maintenance inspection of	Do Not Remo
rotating / moving equipment or altering	guards - DO NOT Remove Before Isolating Equipment	low dip drilling to isolate the exposed drill rod	permit through the work order system	checking modification is authorised	designed to relevant standard (e.g. AS 4024)	equipment by 3rd party specialist	signs on
guarding	Defore isolating Equipment	the exposed dhir rod	order system	adtionsed	Standard (e.g. AS 4024)	specialist	
Unfit for work (incl.	DNA2948475	RISK2077338	RISK2077337	RISK2077336	RISK2077176	RISK2077175	RI
fatigue, drugs, alcohol, existing medical	Regular safety discussions including health & fitness	 SHE-GBL-PRO-PEI-003 SHEC Engineering 	SHE-GBL-STA-MHS-005 Equipment Safeguarding	 Equipment designed to relevant standard (e.g. AS 	SHE-GBL-PRO-TRG-001 SHE Induction & Training	SHE-GBL-STA-OHH-001 Occupational Health &	→ SHE-GBL-PR Health & V
conditions etc.)	for work information (incl. toolbox presentations)	Standards & Guides		4024)		Industrial Hygiene	-
	DNA2950352	DNA2948594	DNA2948589	RISK2077346	RISK2077345	RISK2077344	RI
Inexperience / limited	→ Isolations required to be	Warning signs in place on	Physical barriers for	Increased clerarances to	Presence sensing device	Guarding provides a	Equipment is
knowledge of operator	checked and verified prior to permit issue	guards - DO NOT Remove Before Isolating Equipment	controlled entry to site & work areas	remove pinch points	eg light curtains, pressure plates, two hand control	physical barrier (e.g. mesh) & fixed or only removable	made safe be removed or
		Belore leolating Equipment	Work drodd		etc	using tools or key	
	DNA2948489	RISK2077350	RISK2077349	RISK2077341	RISK2077178	RISK2077177	RI
Slips, trips and falls	PPE - Non-slip footware	Presence sensing device eg light curtains, pressure	Guarding provides a physical barrier (e.g. mesh)	Equipment guarding designed to relevant	SHE-GBL-STA-MHS-016 Work at Heights	SHE-GBL-STA-MHS-005 Equipment Safequarding	Housekeepir
		plates, two hand control	& fixed or only removable	standard (e.g. AS 4024)			
		etc	using tools or key			DI0//0077040	
Authorised work on	DNA2948499 Practice of Buddy System	DNA2948496	RISK2077498 Permit to Work - to	RISK2077496	RISK2077214 SHE-GBL-PRO-PPS-004	RISK2077213	RI
rotating / moving items with guards removed	for work on rotating	external hazards which may impact while working	authorise operation of	made safe before guards	Isolation	Permit to Work	Equipment Sa
	equipment.	on equipment (e.g. a	equipment without guards	removed or disabled			
	RISK2077421	person approaching the work site)	RISK2077190	RISK2077189	RISK2077180	RISK2077179	RI
Poor communication (incl: live test when start	Machinery start up / motion	Practice of Buddy System	SHE-GBL-PRO-OPS-001 Permit to Work	Permit to work covers controls for live testing	→ SHE-GBL-PRO-PPS-004	SHE-GBL-STA-MHS-005	Competen
up)	alarms eg lights, sirens	for work on rotating equipment.	Permit to work	controls for live testing	Isolation	Equipment Safeguarding	training for o persor
Poor maintenance	RISK2077509	RISK2077425	RISK2077422	RISK2077360	RISK2077311	RISK2077310	RI
practices (e.g. leaving	Permit to work - inspection	Planned maintenance &	Pre start inspections of	Equipment guarding	Inspection of equipment on	SHE-GBL-PRO-OPS-001	SHE-GBL-ST
tools on equipment, use of damaged / incorrect	of plant during hand back to check completion of	inspection of equipment & machinery incl: guards	plants after maintenance / extended shutdown	designed to relevant standard (e.g. AS 4024)	return to service prior to closing permit	Permit to Work	Equipment Sa
equipment or tooling)	work	machinery mol. guards	extended shutdown	Standard (c.g. A0 4024)	closing permit		
	DNA2950351	DNA2948595	RISK2077499	RISK2077363	RISK2077362	RISK2077361	RI
Unauthorised work on rotating / moving items	 Machinery guarding (to required standard) 	Warning signs in place on guards - DO NOT Remove	Interlocks to prevent operation of equipment	Presence sensing device eg light curtains, pressure	 Guarding provides a physical barrier (e.g. mesh) 	 Equipment guarding designed to relevant 	Employee per appraisal and of
		Before Isolating Equipment	with guard removed	plates, two hand control etc	& fixed or only removable using tools or key	standard (e.g. AS 4024)	proce
	DNA2948596	RISK2077427	RISK2077239	RISK2077238	RISK2077237	RISK2077235	RI
Incorrect isolation / de-	→ Warning signs in place on	Machinery start up / motion	SHE-GBL-PRO-PPS-004	SHE-GBL-PRO-OPS-001	SHE-GBL-STA-MHS-005	E Stops / Interlocks Fitted	Workplace ar
isolation of systems	guards - DO NOT Remove Before Isolating Equipment	alarms eg lights, sirens	Isolation	Permit to Work	Equipment Safeguarding	to equipment	induc
Intentionally broaching							
Intentionally breaching guard or bypassing	DNA2948597	RISK2077369	RISK2077368	RISK2077317	RISK2077316 Employee performance	RISK2077258	RI
safety interlock (incl: removal or theft of	Warning signs in place on guards - DO NOT Remove	Presence sensing device eg light curtains, pressure	Guarding provides a physical barrier (e.g. mesh)	Employee performance appraisal and development	management	guards	Management
guards)	Before Isolating Equipment	plates, two hand control etc	& fixed or only removable using tools or key	process			
Inconcreticito attiro (o a	RISK2077374	RISK2077373	RISK2077320	RISK2077250	RISK2077249	RISK2077182	RI
Inappropriate attire (e.g. loose clothing, long hair,	Presence sensing device	Guarding provides a	SHE-GBL-PRO-OPS-001 Permit to Work	E Stops / Interlocks Fitted to equipment	 Equipment guarding designed to relevant 	SHE-GBL-PRO-PPS-002 PPE	SHE-GBL-ST, Equipment Sa
jewellery)	eg light curtains, pressure plates, two hand control	physical barrier (e.g. mesh) & fixed or only removable		and a darket rates	standard (e.g. AS 4024)		
	etc	using tools or key					
Poor situational awareness /	RISK2077380	RISK2077379	RISK2077378	RISK2077257	RISK2077256 SHE-GBL-STA-MHS-005	RISK2077255	E Stops / Inter
complacency /	Presence sensing device eg light curtains, pressure	Guarding provides a physical barrier (e.g. mesh)	SHEC Engineering	Permit to Work	Equipment Safeguarding	 Equipment guarding designed to relevant 	to equip
horseplay	plates, two hand control etc	& fixed or only removable using tools or key	Standards & Guides			standard (e.g. AS 4024)	
Unauthorised access to	DNA2948590	DNA2948527	DNA2948526	DNA2948524	DNA2948330	DNA2948329	DI
equipment (e.g. visitor	Physical barriers for	Drill rig crew stop machine	Discussions &	Workplace area specific	Presence sensing device	Guarding provides a	Equipment
or villager approaching the machine)	controlled entry to site & work areas	& challengenvisitors to ensure they are inducted	presentations to the community regarding the	Induction	eg light curtains, pressure plates, two hand control	physical barrier (e.g. mesh) & fixed or only removable	designed to standard (e.g
			hazards of drill rigs		etc	using tools or key	
Poor drilling practices	DNA2948531	DNA2948460	DNA2948456				
(e.g. backing-up a rod / Breaking out threads	DNA2948531	Equipment design	Competency based				
(rotating the rod to undo	rod break out	incorporates rod break out	training for drill rig				
the thread with tool attached (e.g. stillson))		devices	operators				



RISK2076979 Area lighting equipment RISK2077149 In-pit lightning detectors	Environmental / External Factors						
RISK2077185 SHE-GBL-PRO-HAZ-001 Management of Change RISK2077137 Competency based	RISK2077184 SHE-GBL-STA-HAZ-001 Hazard & Change Management RISK2077135 Planned maintenance &	RISK2077183 SHE-GBL-STA-MHS-005 Equipment Safeguarding	RISK2077147 Planned maintenance and testing of safety interlocks	RISK2077146 Defect Management Reporting (reporting system, categorise)	RISK2077145 Industry and OEM reporting of equipment and component issues (recalls)	RISK2077144 OEM Maintenance Manuals (incl. correct tooling, parts specs / weights)	RISK2077143 Competency based training for maintenance personnel (incl: trade competencies)
training for maintenance personnel (incl: trade competencies) RISK2077079 Change management and modification training	RISK2076977 Competency based training for maintenance	RISK2076976 Pre start inspections of equipment incl: checking	RISK2076975 Workplace area specific Induction	RISK2076974 Planned maintenance & inspection of equipment &	RISK2076973 Defect Management Reporting (reporting		
RISK2077165 Supervisor assessment of operators fitness for work	RISK2077164 Site induction (incl. fitness for work requirements)	RISK2077163 Fatigue Management Procedure	RISK2077162 Management & Prevention of Heat Stress procedure	RISK2077161 Drug & alcohol testing (incl. random, causal, blanket)	RISK2077160 Health assessment program	RISK2077159 Pre employment medical assessment	RISK2077158 Employee Fitness for Work Education training
RISK2077198 SHE-GBL-STA-MHS-005 Equipment Safeguarding	RISK2077197 Interlocks to prevent operation of equipment with guard removed	RISK2077196 E Stops / Interlocks Fitted to equipment	RISK2077195 Pre start inspections of equipment to check guards fitted	RISK2077194 Mobile plant & equipment operator training (incl: licensing)	RISK2077081 Competency based training for operations personnel in hazards of equipment	RISK2077078 Buddy system for new starters & contractors	RISK2077014 Competency based training for maintenance personnel (incl: trade competencies)





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 Existing Control
 Potential Control
 Rejected Control
 Critical Control
 Dominant Control
 Mandatory Control

