



ROOT CAUSE ANALYSIS TECHNIQUE



REPORT THE INCIDENT

STEP 1

Determine the Type of Incident (What Happened?)

Accident	Crime	Environmental Impact	Equipment Failure	Financial	Human Resource Occurrence	Industry Specific Incident	Natural Event	Non-conformances	Product Interruption	Resource Wastage
Collision Explosion Fire Hazardous Substance Release Occupational Other	Fraud Kidnapping Industrial Espionage Sabotage / Vandalism Theft Violent Crime Other	Ethical Impact Over stress (overexertion, overwork, overexposure, ergonomics) Spillage Erosion Emission Other	Component Structural Other	Exchange Rates Interest Rate Fluctuation Market Changes Commodity Prices Stock Prices Other	Disrupts Go Slow / Work to Rules Social Demands Strikes Other	Trucking and Trimming Salami Event Process Deviation Other	Earthquake Flooding Hurricane / Cyclone Tsunami Lightning Wind Other	Legal Quality Other	Raw Material Supply Failure Utility Failure Other	Logistical Other

STEP 2

Identify all Consequences / Losses Resulting from the Incident / Event (What were the Consequences?)

1. Damage	2. Illness	3. Injury	4. Production Loss	5. Asset Loss	6. Civil Liability	7. Criminal Liability	8. Vicarious Liability	9. Financial Loss	10. Image / Reputational Loss	11. Substandard Quality Product / Service	12. Loss of Market Share	13. Other
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STEP 3

FOR EACH LOSS THAT WAS DUE TO EXPOSURE TO / CONTACT WITH A SOURCE OF ENERGY OR WITH A SUBSTANCE, IDENTIFY THE WAY IN WHICH THE CONTACT OCCURRED AS WELL AS THE AGENCY (primary item / substance inflicting the injury, damage etc.)

Type of Contact	General Agency	Occupational Hygiene Agency
<ul style="list-style-type: none"> Caught between or under (crushed or amputated) Caught in (pinch and nip points) Contact On (snagged, hung) Contact with (electricity, heat, cold, radiation, chemical noise) Drowning (immersion) Contact with (fall from Elevation to Lower Level) 	<ul style="list-style-type: none"> Aircraft Animals / insects / people Building / structure Compressed Air Container Exposed Product Equipment Electricity Explosive device Fall of ground Fire Fixed walkway Isolation Hand tools Motor vehicles Loose object Ladder / stairs Lifting equipment Machinery Metal - Cold Metal - Hot Motor vehicles Natural phenomenon Obstruction Material / Goods Machinery Metal - Cold Metal - Hot Motor vehicles Natural phenomenon Obstruction 	<ul style="list-style-type: none"> Biological Chemical Cold Dust Ergonomical Fumes Gases Heat Illumination Noise Psychological Radiation Smells Vapours Vibration Other

STEP 4

Determine the risk for this incident, considering the likely recurrence of the event and potential worst-case consequences of the event, should it occur again, in order to determine the level of investigation and management involvement and then gather evidence

IDENTIFY RISK / LOSS POTENTIAL USING RISK ASSESSMENT MATRIX

LIKELIHOOD OF RECURRENT OF EVENT	CONSEQUENCE / SEVERITY				
	1-10k Minor injury	10-100k Temporary disability	100k-1m Permanent disability	1-10m Fatality	>10m Multiple Fatalities
1 or more times per week	Low	Moderate	High	Major	Critical
Occurs once per month	Moderate	High	High	Major	Critical
Occurs once per year	Possible	Low	Moderate	High	Major
Occurs once every 10 years	Unlikely	Low	Low	Moderate	High
Occurs once in a life time/100 years	Rare	Low	Low	Moderate	High

RISK LEVEL	INVESTIGATION	REQUIREMENTS
LOW RISK	PRELIMINARY INVESTIGATION	SUPERVISOR
MODERATE RISK	CAUSAL INCIDENT INVESTIGATION	LINE MANAGEMENT
HIGH RISK	RCAT INVESTIGATION	MIDDLE / SENIOR MANAGEMENT
HIGH RISK	RCAT INVESTIGATION	SENIOR MANAGEMENT / MD

GATHER INCIDENT INFORMATION / EVIDENCE (FACTS)

<ul style="list-style-type: none"> Witnesses are not limited to eyewitnesses Do not lead the witness or force answers Do not argue with or refute the witness 	<ul style="list-style-type: none"> Accuracy of information is critical Record locations of all principal elements Use drawing, mapping, photography, video as needed Keep accurate photo logs 	<ul style="list-style-type: none"> Some overlap with position evidence Chain of custody considerations Can be liquids or gases, not just solids Must be protected to avoid contamination or further damage Undamaged parts may tell as much as damaged parts Some physical evidence will require scientific interpretation 	<ul style="list-style-type: none"> Potentially the most durable evidence Can directly reveal underlying causes 	<ul style="list-style-type: none"> Identify process (production) conditions Identify where normal parameters were not met Identify abnormalities Identify the physical environment, and especially sudden changes to that environment. Is factors that need to be identified. The situation at the time of the accident is what is important, not what the "usual" conditions were.
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STEP 5

IDENTIFY THE IMMEDIATE CAUSES

SUB-STANDARD ACTS / "AT RISK" BEHAVIOUR				SUB-STANDARD CONDITIONS / "AT RISK" CONDITIONS			
IDENTIFY THE POSSIBLE INDIVIDUAL OR TEAM ACTIONS THAT CONTRIBUTED TO THE INCIDENT				IDENTIFY THE POSSIBLE CONDITIONS THAT CONTRIBUTED TO THE INCIDENT			
1. Deviation by individual	2. Improper use of equipment	3. Lack of knowledge of hazards present	4. Improper decision making or lack of judgement	6.1 Inadequate guards or protective devices	6.2 Inadequate vehicles, vessels, aircraft and rolling stock	7.1 Fire or explosion	8.1 Congestion or restricted motion
1.2 Deviation by group	2.1 Improper use of tools or equipment	3.2 Personal protective equipment not used	4.2 Distraction by other activities	6.3 Inadequate personal protective equipment	6.4 Inadequately prepared vehicles, vessels, aircraft and rolling stock	7.2 Noise	8.2 Inadequate or excessive illumination
1.3 Deviation by supervisor	2.2 Use of defective equipment (wear)	3.3 Inadequate use of personal protective equipment	4.3 Inadequate training	6.5 Inadequately prepared equipment	6.5.1 Inadequately prepared equipment	7.3 Energized electrical systems	8.3 Inadequate ventilation
1.4 Operation of equipment without authority	2.3 Use of defective tools (jams)	3.4 Servicing of energized equipment	4.4 Horseplay	6.6 Inadequately prepared equipment for the purpose	6.6.1 Inadequately prepared equipment	7.4 Energized systems, other than electrical	8.4 Unprotected height
1.5 Improper position or posture for the task	2.4 Operation of equipment at improper speed	3.5 Equipment or materials not secured	4.5 Acts of violence	6.7 Inadequately prepared equipment	6.7.1 Inadequately prepared equipment	7.5 Radiation	8.5 Inadequate work place layout
1.6 Overstress of physical capability	2.5 Servicing of equipment in operation	3.6 Disabled guards, warning systems or safety devices	4.6 Failure to warn / make safe	6.8 Inadequately prepared equipment	6.8.1 Inadequately prepared equipment	7.6 Temperature extremes	8.6 Inadequate communication
1.7 Work or motion at improper speed	2.6 Other	3.7 Removal of guards, warning systems or safety devices	4.7 Use of drugs or alcohol	6.9 Inadequately prepared equipment	6.9.1 Inadequately prepared equipment	7.7 Hazardous chemicals	8.7 Inadequate control of hazardous materials
1.8 Improper lifting	2.7 Other	3.8 Personal protective equipment not available	4.8 Routine activity without thought	6.10 Other	6.10.1 Other	7.8 Mechanical hazards	8.8 Inadequate displays
1.9 Improper loading		3.9 Other	4.9 Other			7.9 Clutter or debris	8.9 Inadequate labels
1.10 Shortcuts						7.10 Storms or acts of nature	8.10 Inadequate locations out of reach or sight
1.11 Other						7.11 Slippery floors or walkways	8.11 Inadequate conflicting information is presented
						7.12 Other	8.12 Other

STEP 6

IDENTIFY THE ROOT (BASIC) CAUSES

HUMAN FACTORS							WORKPLACE FACTORS							
IDENTIFY THE POSSIBLE HUMAN FACTORS THAT CONTRIBUTED TO THE IMMEDIATE CAUSE							IDENTIFY THE WORKPLACE FACTORS THAT CONTRIBUTED TO THE IMMEDIATE CAUSE							
1. Vision deficiency	2. Previous injury or illness	3. Poor judgement	4.1 Preoccupation with problems	5.1 Improper performance is recognized	6.1 Inadequate assessment of hazard	7.1 Inadequate knowledge transfer	8.1 Conflicting roles / responsibilities	9.1 Lack of contractor pre-qualification	10.1 Inadequate technical design	11.1 Inadequate work planning	12.1 Inadequate preventive maintenance	13.1 Inadequate assessment of needs and risks	14.1 Lack of PSP for the task	15.1 Inadequate horizontal communication
1.1 Vision deficiency	2.1 Previous injury or illness	3.1 Poor judgement	4.1.1 Preoccupation with problems	5.1.1 Improper performance is recognized	6.1.1 Inadequate assessment of hazard	7.1.1 Inadequate knowledge transfer	8.1.1 Conflicting roles / responsibilities	9.1.1 Lack of contractor pre-qualification	10.1.1 Inadequate technical design	11.1.1 Inadequate work planning	12.1.1 Inadequate preventive maintenance	13.1.1 Inadequate assessment of needs and risks	14.1.1 Lack of PSP for the task	15.1.1 Inadequate horizontal communication
1.2 Hearing deficiency	2.2 Fatigue	3.2 Memory failure	4.2 Frustration	5.2 Inadequate performance is not recognized	6.2 Inadequate practice of skill	7.2 Inadequate training program design	8.2 Inadequate relationship / communication	9.2 Inadequate contractor selection	10.2 Design input not correct	11.2 Inadequate research on materials / equipment	12.2 Inadequate specifications to vendors	13.2 Inadequate human factors / ergonomics considerations	14.2 Inadequate coordination with other departments	15.2 Inadequate vertical communication
1.3 Other sensory deficiency	2.3 Due to workload	3.3 Emotional disturbance	4.3 Conflicting directions / demands	5.3 Inadequate performance is not recognized	6.3 Inadequate performance of skill	7.3 Inadequate training program design	8.3 Inadequate reporting / communication	9.3 Inadequate contractor selection	10.3 Design input not available	11.3 Inadequate research on materials / equipment	12.3 Inadequate specifications to vendors	13.3 Inadequate standards	14.3 Inadequate coordination with other departments	15.3 Inadequate communication between different organizations
1.4 Reduced respiratory capacity	2.4 Due to lack of rest	3.4 Fears or phobias	4.4 Meaningless or degrading activities	5.4 Inadequate performance is not recognized	6.4 Lack of coaching on skill	7.4 Inadequate training program design	8.4 Inadequate reporting / communication	9.4 Use of non-approved contractor	10.4 Design input inadequate	11.4 Inadequate research on materials / equipment	12.4 Inadequate specifications to vendors	13.4 Inadequate standards	14.4 Inadequate coordination with other departments	15.4 Inadequate communication between work groups
1.5 Other permanent physical disabilities	2.5 Due to sensory overload	3.5 Fears or phobias	4.5 Meaningless or degrading activities	5.5 Inadequate performance is not recognized	6.5 Inadequate performance of skill	7.5 Inadequate training program design	8.5 Inadequate reporting / communication	9.5 Lack of job oversight	10.5 Design input inadequate	11.5 Inadequate research on materials / equipment	12.5 Inadequate specifications to vendors	13.5 Inadequate standards	14.5 Inadequate coordination with other departments	15.5 Inadequate communication between work groups
1.6 Temporary disabilities	2.6 Low mechanical aptitude	3.6 Low mechanical aptitude	4.6 Emotional overload	5.6 Inadequate performance is not recognized	6.6 Inadequate performance of skill	7.6 Inadequate training program design	8.6 Inadequate reporting / communication	9.6 Inadequate contractor selection	10.6 Design input inadequate	11.6 Inadequate research on materials / equipment	12.6 Inadequate specifications to vendors	13.6 Inadequate standards	14.6 Inadequate coordination with other departments	15.6 Inadequate communication between work groups
1.7 Inability to sustain body position	2.7 Due to temperature extremes	3.7 Low leaning posture	4.7 Extreme judgement / decision demands	5.7 Inadequate performance is not recognized	6.7 Inadequate performance of skill	7.7 Inadequate training program design	8.7 Inadequate reporting / communication	9.7 Inadequate contractor selection	10.7 Design input inadequate	11.7 Inadequate research on materials / equipment	12.7 Inadequate specifications to vendors	13.7 Inadequate standards	14.7 Inadequate coordination with other departments	15.7 Inadequate communication between work groups
1.8 Restricted range of body movement	2.8 Due to oxygen deficiency	3.8 Influenced by medication	4.8 Inadequate judgement / decision demands	5.8 Inadequate performance is not recognized	6.8 Inadequate performance of skill	7.8 Inadequate training program design	8.8 Inadequate reporting / communication	9.8 Inadequate contractor selection	10.8 Design input inadequate	11.8 Inadequate research on materials / equipment	12.8 Inadequate specifications to vendors	13.8 Inadequate standards	14.8 Inadequate coordination with other departments	15.8 Inadequate communication between work groups
1.9 Substance sensitivities or other allergies	2.9 Due to atmospheric pressure variation	3.9 Other	4.9 Extreme boredom	5.9 Inadequate performance is not recognized	6.9 Inadequate performance of skill	7.9 Inadequate training program design	8.9 Inadequate reporting / communication	9.9 Inadequate contractor selection	10.9 Design input inadequate	11.9 Inadequate research on materials / equipment	12.9 Inadequate specifications to vendors	13.9 Inadequate standards	14.9 Inadequate coordination with other departments	15.9 Inadequate communication between work groups
1.10 Inadequate size or strength	2.10 Blood sugar insufficiency	3.10 Other	4.10 Extreme boredom	5.10 Inadequate performance is not recognized	6.10 Inadequate performance of skill	7.10 Inadequate training program design	8.10 Inadequate reporting / communication	9.10 Inadequate contractor selection	10.10 Design input inadequate	11.10 Inadequate research on materials / equipment	12.10 Inadequate specifications to vendors	13.10 Inadequate standards	14.10 Inadequate coordination with other departments	15.10 Inadequate communication between work groups
1.11 Diminished capacity due to medication	2.11 Impairment due to drug or alcohol use	3.11 Not Applicable	4.11 Other	5.11 Inadequate performance is not recognized	6.11 Inadequate performance of skill	7.11 Inadequate training program design	8.11 Inadequate reporting / communication	9.11 Inadequate contractor selection	10.11 Design input inadequate	11.11 Inadequate research on materials / equipment	12.11 Inadequate specifications to vendors	13.11 Inadequate standards	14.11 Inadequate coordination with other departments	15.11 Inadequate communication between work groups
1.12 Diminished capacity due to inadequate intake of substance	2.12 Other	3.12 Not Applicable	4.12 Other	5.12 Inadequate performance is not recognized	6.12 Inadequate performance of skill	7.12 Inadequate training program design	8.12 Inadequate reporting / communication	9.12 Inadequate contractor selection	10.12 Design input inadequate	11.12 Inadequate research on materials / equipment	12.12 Inadequate specifications to vendors	13.12 Inadequate standards	14.12 Inadequate coordination with other departments	15.12 Inadequate communication between work groups
1.13 Other	2.13 Not Applicable	3.13 Not Applicable	4.13 Other	5.13 Inadequate performance is not recognized	6.13 Inadequate performance of skill	7.13 Inadequate training program design	8.13 Inadequate reporting / communication	9.13 Inadequate contractor selection	10.13 Design input inadequate	11.13 Inadequate research on materials / equipment	12.13 Inadequate specifications to vendors	13.13 Inadequate standards	14.13 Inadequate coordination with other departments	15.13 Inadequate communication between work groups
1.14 Not Applicable	2.14 Not Applicable	3.14 Not Applicable	4.14 Other	5.14 Inadequate performance is not recognized	6.14 Inadequate performance of skill	7.14 Inadequate training program design	8.14 Inadequate reporting / communication	9.14 Inadequate contractor selection	10.14 Design input inadequate	11.14 Inadequate research on materials / equipment	12.14 Inadequate specifications to vendors	13.14 Inadequate standards	14.14 Inadequate coordination with other departments	15.14 Inadequate communication between work groups
1.15 Not Applicable	2.15 Not Applicable	3.15 Not Applicable	4.15 Other	5.15 Inadequate performance is not recognized	6.15 Inadequate performance of skill	7.15 Inadequate training program design	8.15 Inadequate reporting / communication	9.15 Inadequate contractor selection	10.15 Design input inadequate	11.15 Inadequate research on materials / equipment	12.15 Inadequate specifications to vendors	13.15 Inadequate standards	14.15 Inadequate coordination with other departments	15.15 Inadequate communication between work groups

STEP 7

IDENTIFY THE SYSTEMS DEFICIENCIES THAT CONTRIBUTED TO THE EXISTENCE OF ROOT CAUSES

REVIEW STATUS OF CURRENT/SYSTEM CONTROL ACTIVITIES												
1.1 PLANNING AND IMPLEMENTING	2.1 EMPLOYEE ORIENTATION / AWARENESS	4.1 PLANNING FOR PRODUCT REALISATION	6.1 ORGANIZATION PERMITS AND CONTROLS	8.1 OCCUPATIONAL HEALTH ADMINISTRATION	10.1 PERSONAL PROTECTIVE EQUIPMENT REQUIREMENTS	12.1 EMERGENCY PREPAREDNESS ADMINISTRATION	14.1 CORRECTIVE AND PREVENTIVE ACTION SYSTEMS					
1.1.1 PLANNING AND IMPLEMENTING	2.1.1 EMPLOYEE ORIENTATION / AWARENESS	4.1.1 PLANNING FOR PRODUCT REALISATION	6.1.1 ORGANIZATION PERMITS AND CONTROLS	8.1.1 OCCUPATIONAL HEALTH ADMINISTRATION	10.1.1 PERSONAL PROTECTIVE EQUIPMENT REQUIREMENTS	12.1.1 EMERGENCY PREPAREDNESS ADMINISTRATION	14.1.1 CORRECTIVE AND PREVENTIVE ACTION SYSTEMS					
1.2 RESOURCING	2.2 COMPETENCY AND TRAINING NEEDS IDENTIFIED	4.2 PROCESSES RELATED TO INTERESTED PARTIES	6.2 EXTERNALLY REQUIRED PERMITS	8.2 HAZARD RECOGNITION AND EVALUATION	10.2 PERSONAL PROTECTIVE EQUIPMENT AVAILABILITY	12.2 EMERGENCY RESPONSE PLANS	14.2 CORRECTIVE AND PREVENTIVE ACTION PROCESS					
1.2.1 RESOURCING	2.2.1 COMPETENCY AND TRAINING NEEDS IDENTIFIED	4.2.1 PROCESSES RELATED TO INTERESTED PARTIES	6.2.1 EXTERNALLY REQUIRED PERMITS	8.2.1 HAZARD RECOGNITION AND EVALUATION	10.2.1 PERSONAL PROTECTIVE EQUIPMENT AVAILABILITY	12.2.1 EMERGENCY RESPONSE PLANS	14.2.1 CORRECTIVE AND PREVENTIVE ACTION PROCESS					
1.3 DOCUMENTS AND DATA CONTROL	2.3 TRAINING PROGRAM CONTENT AND DELIVERY	4.3 DESIGN AND DEVELOPMENT	6.3 ORGANISATION S-H-E-R PROGRAM	8.3 HAZARD CONTROLS	10.3 PERSONAL PROTECTIVE EQUIPMENT COMPLIANCE	12.3 EMERGENCY RESPONSE TEAMS	14.3 COMMUNICATIONS					
1.3.1 DOCUMENTS AND DATA CONTROL	2.3.1 TRAINING PROGRAM CONTENT AND DELIVERY	4.3.1 DESIGN AND DEVELOPMENT	6.3.1 ORGANISATION S-H-E-R PROGRAM	8.3.1 HAZARD CONTROLS	10.3.1 PERSONAL PROTECTIVE EQUIPMENT COMPLIANCE	12.3.1 EMERGENCY RESPONSE TEAMS	14.3.1 COMMUNICATIONS					
1.4 DOCUMENTS AND EMPLOYEE INVOLVEMENT	2.4 TRAINING PROGRAM EFFECTIVENESS	4.4 PRODUCTION AND SERVICE FUNCTION	6.4 ORGANISATION S-H-E-R PROGRAM	8.4 OCCUPATIONAL HYGIENE MONITORING	10.4 INCIDENT / NON-COMPLIANCE REPORTING	12.4 EMERGENCY EQUIPMENT MUTUAL AID	14.4 CONTROL OF NON-COMPLYING PRODUCTS					
1.4.1 DOCUMENTS AND EMPLOYEE INVOLVEMENT	2.4.1 TRAINING PROGRAM EFFECTIVENESS	4.4.1 PRODUCTION AND SERVICE FUNCTION	6.4.1 ORGANISATION S-H-E-R PROGRAM	8.4.1 OCCUPATIONAL HYGIENE MONITORING	10.4.1 INCIDENT / NON-COMPLIANCE REPORTING	12.4.1 EMERGENCY EQUIPMENT MUTUAL AID	14.4.1 CONTROL OF NON-COMPLYING PRODUCTS					
1.5 EXTERNAL REGULATIONS AND STANDARDS	2.5 ONE-ON-ONE COMMUNICATIONS	4.5 EQUIPMENT, MATERIALS AND SUPPLIERS CONTRACTORS	6.5 STATUTORY COMPLIANCE	8.5 OCCUPATIONAL MEDICINE RECORDS	10.5 INCIDENT / NON-COMPLIANCE INVESTIGATION PROCESS	12.5 ROUTINE PROCESS MEASUREMENTS	14.5 CULTURAL / ETHIC COMMUNICATION BARRIERS					
1.5.1 EXTERNAL REGULATIONS AND STANDARDS	2.5.1 ONE-ON-ONE COMMUNICATIONS	4.5.1 EQUIPMENT, MATERIALS AND SUPPLIERS CONTRACTORS	6.5.1 STATUTORY COMPLIANCE	8.5.1 OCCUPATIONAL MEDICINE RECORDS	10.5.1 INCIDENT / NON-COMPLIANCE INVESTIGATION PROCESS	12.5.1 ROUTINE PROCESS MEASUREMENTS	14.5.1 CULTURAL / ETHIC COMMUNICATION BARRIERS					
1.6 EXTERNAL RELATIONS	2.6 GROUP S-H-E-Q MEETINGS	4.6 IDENTIFYING OPERATIONAL RISK	6.6 INSPECTIONS	8.6 RECORDS	10.6 MIDDLE AND SENIOR MANAGEMENT PARTICIPATION	12.6 SYSTEM AUDITS	14.6 INADEQUATE COMMUNICATION OF PSP					
1.6.1 EXTERNAL RELATIONS	2.6.1 GROUP S-H-E-Q MEETINGS	4.6.1 IDENTIFYING OPERATIONAL RISK	6.6.1 INSPECTIONS	8.6.1 RECORDS	10.6.1 MIDDLE AND SENIOR MANAGEMENT PARTICIPATION	12.6.1 SYSTEM AUDITS	14.6.1 INADEQUATE COMMUNICATION OF PSP					
1.7 MANAGEMENT REVIEWS	2.7 PROGRAM PROMOTIONS	4.7 OPERATION ANALYSIS	6.7 PLANNED GENERAL INSPECTIONS	8.7 RECORDS	10.7 INCIDENT / NON-COMPLIANCE ANALYSIS	12.7 SYSTEM AUDITS	14.7 INADEQUATE OBSERVATION OF PSP					
1.7.1 MANAGEMENT REVIEWS	2.7.1 PROGRAM PROMOTIONS	4.7.1 OPERATION ANALYSIS	6.7.1 PLANNED GENERAL INSPECTIONS	8.7.1 RECORDS	10.7.1 INCIDENT / NON-COMPLIANCE ANALYSIS	12.7.1 SYSTEM AUDITS	14.7.1 INADEQUATE OBSERVATION OF PSP					
1.8 MANAGEMENT REVIEWS	2.8 MANAGEMENT OF OPERATIONAL RISK AND CHANGE	4.8 SIGNIFICANT TASK IDENTIFICATION AND ANALYSIS	6.8 PLANNED S-H-E-Q EQUIPMENT INSPECTIONS	8.8 RECORDS	10.8 INCIDENT / NON-COMPLIANCE ANALYSIS	12.8 SYSTEM AUDITS	14.8 INADEQUATE OBSERVATION OF PSP					
1.8.1 MANAGEMENT REVIEWS	2.8.1 MANAGEMENT OF OPERATIONAL RISK AND CHANGE	4.8.1 SIGNIFICANT TASK IDENTIFICATION AND ANALYSIS	6.8.1 PLANNED S-H-E-Q EQUIPMENT INSPECTIONS	8.8.1 RECORDS	10.8.1 INCIDENT / NON-COMPLIANCE ANALYSIS	12.8.1 SYSTEM AUDITS	14.8.1 INADEQUATE OBSERVATION OF PSP					

FOOTNOTE: REFER TO GLOSSARY OF TERMS FOR EXPLANATION OF ELEMENTS

INTERNATIONAL BEST PRACTICE REFERENCE

DESCRIPTION	CAP ELEMENT	ISO 9001:2008	ISO 14001:2004	OHSAS 18001:2007	DESCRIPTION	CAP ELEMENT	ISO 9001:2008	ISO 14001:2004	OHSAS 18001:2007
SHEQ Policy	CAP Element 1: 1.1-1.14	4.2.1(a), 5.1(b), 3.5, 3.6.1	4.2.4, 4.6, 4.4	4.2.4, 4.6	Contractors	5.2	7.4	4.3.1, 4.3.2, 4.4, 6	4.3.1, 4.4, 6
External Communications	1.15	5.2.2, 2.1	4.3.1, 4.4, 4.4, 4.4, 4.6	4.4, 4.3	Internal Permits and Operating Controls	6.1	7.5.1, 7.5.2, 6.2.2, 4.2, 4.5.1	4.3.1, 4.3.2, 4.4, 4.4, 4.4, 4.5, 4.4	4.3.1, 4.3.2, 4.4, 4.4, 4.4, 4.5, 4.4
Scope	1.1.6	4.1.1, 1.7, 8	4.1.1, 1.7, 8	4.1	Emergency Preparedness	6.2	7.2.1, 7.3, 5.5.1, 4.2, 4.5, 8.5.3	4.3.2, 4.4.1, 4.3.1, 4.4, 4.5, 4.5, 4.5	4.3.2, 4.4.1, 4.3.1, 4.5, 4.5, 4.5
Roles & Responsibilities	1.1.7-1.1.8	5.1.1, 6.2.2	4.4.1, 4.4.2	4.4.1, 4.4.2	Personal Protective Equipment	7.1-7.3	7.1, 7.8, 8.2.3, 8.2, 8.1, 4.2, 4.7, 7.6(a)	4.4, 4.5, 1, 4.3.1, 4.5, 2, 4.5, 4	4.4, 4.5, 1, 4.3.1, 4.5, 4
SHEQ Objectives & Targets	1.1.9-1.1.11	5.4.1, 5.6, 1.7.1	4.3.3, 4.3.3	4.3, 4.3	Maintenance	7.4	6.3, 6.4, 7.2.1	4.4, 4.5, 1, 4.3.1, 4.3, 3	4.4, 4.5, 1, 4.3.1, 4.3, 3
SHEQ Management Plans	1.1.12	5.4.2	4.4.1, 4.6	4.4.1, 4.6	Statutory Compliance	7.5</			